

## TRENDS IN MARINE FISH PRODUCTION IN INDIA—1981<sup>III</sup>

The total marine fish production in India during 1981 was estimated at 13,78,457 tonnes as compared to 12,49,837 tonnes during 1980, showing an increase of about 10%. While West Bengal, Tamil Nadu, Pondicherry, Karnataka, Goa, Maharashtra, Gujarat and Lakshadweep recorded higher landings, Orissa and Kerala accounted lower catches as compared to 1980. The catch in Andhra Pradesh and Andamans remained more or less same (Table 1).

**Table 1.** Statewise total marine fish landings in India during the years 1981 and 1980 (in tonnes)

| Sl.No.       | State             | 1981             | 1980             |
|--------------|-------------------|------------------|------------------|
| 1.           | West Bengal       | 20,107           | 6,097*           |
| 2.           | Orissa            | 35,655           | 39,375           |
| 3.           | Andhra Pradesh    | 1,16,143         | 1,16,013         |
| 4.           | Tamil Nadu        | 2,21,296         | 2,17,394         |
| 5.           | Pondicherry**     | 10,755           | 9,390            |
| 6.           | Kerala            | 2,74,395         | 2,79,543         |
| 7.           | Karnataka         | 1,53,349         | 1,15,322         |
| 8.           | Goa***            | 34,498           | 24,490           |
| 9.           | Maharashtra       | 2,72,587         | 2,31,763         |
| 10.          | Gujarat           | 2,34,510         | 2,03,494         |
| 11.          | Andamans          | 1,862            | 1,803            |
| 12.          | Lakshadweep       | 3,300            | 2,909            |
| 13.          | Private trawlers† | —                | 2,244            |
| <b>TOTAL</b> |                   | <b>13,78,457</b> | <b>12,49,837</b> |

\* Contai coast only

\*\* Excluding Mahe and Yenam which are included in Kerala and Andhra Pradesh respectively.

\*\*\* Excluding Daman and Diu which are included in Gujarat.

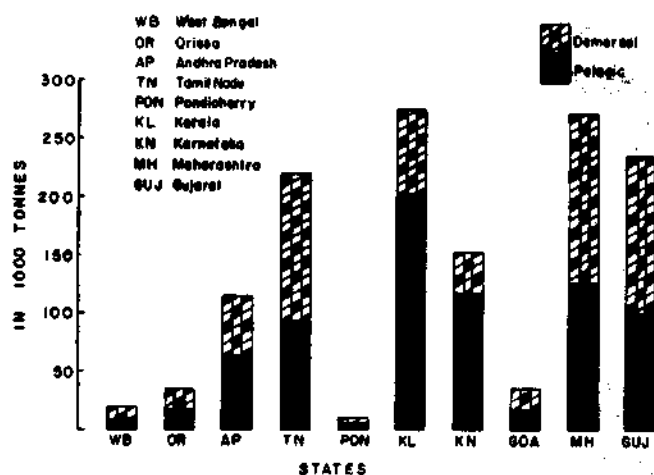
† Partial coverage of larger trawlers.

Comparable figure for 1981 is not available.

### Pelagic and demersal group of fishes

The specieswise composition of total marine fish landings in India is shown in Table 2. The pelagic group of species comprises of *Chirocentrus*, oil sardine, lesser sardines, hilsa shad, other shads, *Stolephorus*, (white bait), *Thryssa*, *Setipinna*, *Coilia*, other clupeoids, Bombay duck, half beaks and full beaks, flying fish, ribbon fish, carangids, mackerel, seer fish, tunnies,

barracudas, mullets and unicorn cod. The elasmobranchs, eels, catfishes, lizard fishes, perches, red mullets, polynemids, sciaenids, silverbellies, *Lactarius*, pomfrets, soles, prawns, lobsters and cephalopods form the demersal group. The statewise break-up of pelagic and demersal groups of fishes is shown in Table 3 and Fig. 1.



**Fig. 1.** Pelagic and demersal catch in different states during 1981

From Table 3 it is noticed that Kerala accounted for the highest catch of pelagic group of fishes during 1981, followed by Maharashtra, Karnataka, Gujarat, Tamil Nadu and Andhra Pradesh. As regards demersal group of fishes, Maharashtra recorded the maximum catch followed by Gujarat, Tamil Nadu, Kerala, Andhra Pradesh and Karnataka.

### All India marine fish production during 1971 to 1981

Table 4 shows the all India total marine fish production and species composition for the 11 year period 1971 to 1981. The production figures show a fluctuating trend between 1971 and 1981, the maximum and minimum landings being 1.42 million in 1975 and 0.98 million tonnes in 1972 respectively. The landings during 1981 formed about 97% of the maximum catch recorded in 1975. The trends in marine fish production in respect of various maritime states of India are shown in Tables 5 to 17.

Table 2. Estimated marine fish landings in India during 1981 (in tonnes)

| Sl. No. | Name of fish  | West Bengal | Orissa | Andhra Pradesh | Tamil Nadur | Pondicherry | Kerala   | Karnataka | Goa   | Maharashtra | Gujarat | Andamans | Lakshadweep | Total    |
|---------|---|-------------|--------|----------------|-------------|-------------|----------|-----------|-------|-------------|---------|----------|-------------|----------|
| 1.      | Elasmobranchs   |             |        |                |             |             |          |           |       |             |         |          |             |          |
| a.      | Sharks  | 311         | 2,293  | 2,869          | 2,240       | 193         | 3,580    | 3,929     | 881   | 7,471       | 9,134   | 21       | 189         | 33,111   |
| b.      | Skates  | 170         | —      | 367            | 124         | —           | 120      | —         | —     | 176         | 101     | —        | —           | 1,058    |
| c.      | Rays  | 113         | 917    | 2,000          | 10,878      | 194         | 1,171    | 136       | 169   | 2,028       | 4,198   | 14       | 22          | 21,840   |
| 2.      | Eels  | —           | 24     | 406            | 93          | 13          | 3        | —         | 19    | 2,290       | 2,179   | —        | —           | 5,027    |
| 3.      | Catfishes   | 4,449       | 6,084  | 4,250          | 3,792       | 102         | 9,562    | 7,503     | 2,211 | 11,045      | 10,370  | 22       | —           | 59,390   |
| 4.      | Clupeoids   |             |        |                |             |             |          |           |       |             |         |          |             |          |
| a.      | Wolf herring ( <i>Chirocentrus</i> )                            | 296         | 1,281  | 1,111          | 1,820       | 85          | 973      | 118       | 181   | 2,918       | 2,986   | 25       | —           | 11,794   |
| b.      | Oil sardine   | —           | —      | —              | 195         | —           | 1,46,986 | 65,614    | 7,609 | 622         | —       | —        | —           | 2,21,026 |
| c.      | Other sardines (Lesser sardines)                                | —           | 4,535  | 15,719         | 24,448      | 1,342       | 7,629    | 5,328     | 2,296 | 420         | —       | 263      | —           | 61,980   |
| d.      | Hilsa shad ( <i>Hilsa ilisha</i> )                              | 2,672       | 2,085  | 40             | 52          | —           | 8        | 1         | 2     | 530         | 17      | —        | —           | 5,407    |
| e.      | Other shads (Other Hilsa)                                       | 44          | 353    | 1,343          | 3,516       | 129         | 15       | 331       | 26    | 2,201       | 10,283  | 26       | —           | 18,267   |
| f.      | Anchovies   |             |        |                |             |             |          |           |       |             |         |          |             |          |
|         | <i>Coilia</i>   | 245         | 43     | 54             | 203         | 6           | —        | 1         | —     | 17,164      | 2,466   | —        | —           | 20,182   |
|         | <i>Setipinna</i>  | 456         | 114    | 177            | 285         | 70          | —        | —         | —     | —           | —       | —        | —           | 1,102    |
|         | <i>Stolephorus</i>  | 4           | 86     | 13,829         | 8,357       | 507         | 4,293    | 5,959     | 108   | 55          | —       | 185      | —           | 33,383   |
|         | ( <i>Anchoviella</i> )  |             |        |                |             |             |          |           |       |             |         |          |             |          |
|         | <i>Thryssa</i> ( <i>Thrissocles</i> )                           | 66          | 322    | 2,523          | 6,465       | 520         | 634      | 296       | 593   | 944         | 1,274   | —        | —           | 13,637   |
| g.      | Other clupeoids   | 2,407       | 2,050  | 4,942          | 5,038       | 394         | 944      | 950       | 341   | 3,150       | 4,601   | —        | —           | 24,817   |
| 5.      | Bombay duck ( <i>Harporodon nehereus</i> )                      | 618         | 73     | 845            | 3           | —           | —        | —         | 1     | 82,136      | 54,114  | —        | —           | 1,37,790 |
| 6.      | Lizard fishes ( <i>Saurida</i> & <i>Saurus</i> )                | —           | 108    | 1,024          | 1,455       | 246         | 5,691    | 333       | 707   | 1,308       | 110     | —        | —           | 10,982   |
| 7.      | Half beaks & full beaks ( <i>Hemirhamphus</i> & <i>Belone</i> ) | 1           | 2      | 29             | 819         | 57          | 565      | 148       | 2     | 46          | —       | 17       | 113         | 1,799    |
| 8.      | Flying fishes   | —           | —      | —              | 2,460       | 614         | 16       | —         | —     | —           | —       | 3        | 16          | 3,109    |
| 9.      | Perches   |             |        |                |             |             |          |           |       |             |         |          |             |          |
| a.      | Rock cods   | —           | 1      | 35             | 549         | 13          | 734      | 10        | 3     | 119         | 189     | —        | —           | 1,653    |
| b.      | Snappers  | —           | 10     | 210            | 553         | —           | 76       | 53        | 3     | 136         | 328     | —        | —           | 1,369    |
| c.      | Pig face breams   | —           | —      | —              | 771         | 17          | 91       | 1         | —     | 7           | —       | —        | —           | 887      |
| d.      | Threadfin breams  | —           | 7      | 2,049          | 1,687       | 407         | 6,442    | 256       | 562   | 2,156       | 2,055   | —        | —           | 15,621   |
| e.      | Other perches   | 37          | 104    | 3,400          | 2,893       | 495         | 1,206    | 79        | 615   | 199         | 2,260   | 192      | 315         | 11,795   |
| 10.     | Goat fishes (Red mullets)                                       | —           | 104    | 684            | 1,116       | 155         | 33       | —         | 60    | 982         | 294     | —        | 25          | 3,453    |
| 11.     | Threadfins (Polynemids)   | 312         | 566    | 776            | 236         | 1           | 47       | —         | 14    | 711         | 1,585   | —        | —           | 4,248    |
| 12.     | Croakers (Sciaenids)  | 270         | 2,133  | 7,046          | 13,140      | 330         | 3,145    | 2,295     | 1,610 | 17,475      | 35,242  | —        | —           | 82,686   |
| 13.     | Ribbon fishes   | 161         | 995    | 8,207          | 7,605       | 217         | 7,066    | 235       | 684   | 8,048       | 8,327   | 24       | —           | 41,569   |
| 14.     | Carangids   |             |        |                |             |             |          |           |       |             |         |          |             |          |
| a.      | Horse mackerel  | —           | 68     | 275            | 16          | —           | 55       | 999       | 113   | 135         | 757     | —        | —           | 2,418    |
| b.      | Scads   | —           | 97     | 3,523          | 1,265       | 162         | 1,688    | 13        | —     | —           | —       | —        | —           | 6,748    |
| c.      | Leather jackets ( <i>Chorinemus</i> )                           | 62          | 196    | 453            | 608         | 32          | 318      | 148       | 44    | 360         | 2,764   | —        | —           | 4,985    |
| d.      | Other carangids   | —           | 150    | 1,415          | 12,735      | 1,507       | 2,989    | 2,429     | 565   | 1,014       | 89      | 196      | 105         | 23,194   |

Table 2 Contd.

| Sl. No. | Name of fish   | West Bengal | Orissa | Andhra Pradesh | Tamil Nadu | Pondicherry | Kerala   | Karnataka | Goa    | Maharashtra | Gujarat  | Andamans | Lakshadweep | Total     |
|---------|--|-------------|--------|----------------|------------|-------------|----------|-----------|--------|-------------|----------|----------|-------------|-----------|
| 15.     | Silverbellies<br>( <i>Leiognathus</i> & <i>Gazza</i> ) | —           | 733    | 9,856          | 50,942     | 975         | 2,826    | 1,638     | 2,075  | 129         | —        | 275      | —           | 69,449    |
| 16.     | Big-jawed jumper<br>( <i>Lactarius</i> )               | —           | 49     | 817            | 818        | 44          | 879      | 515       | 820    | 500         | 3,769    | —        | —           | 8,211     |
| 17.     | Pomfrets   |             |        |                |            |             |          |           |        |             |          |          |             |           |
| a.      | Black pomfret  | 8           | 780    | 1,778          | 524        | 96          | 616      | 53        | 103    | 2,965       | 2,853    | 1        | —           | 9,777     |
| b.      | Silver pomfret   | 2,770       | 2,903  | 891            | 143        | 27          | 747      | 358       | 20     | 14,178      | 16,147   | 5        | —           | 38,189    |
| c.      | Chinese pomfret  | 540         | 2      | 29             | 3          | —           | 10       | 8         | —      | 1           | 169      | —        | —           | 762       |
| 18.     | Mackerel   |             |        |                |            |             |          |           |        |             |          |          |             |           |
| a.      | <i>R. kanagurta</i>                                    | —           | 823    | 3,255          | 3,900      | 308         | 16,200   | 19,766    | 3,939  | 289         | —        | 156      | —           | 48,660    |
| b.      | Other mackerel   | —           | —      | —              | 16         | 8           | —        | —         | —      | —           | —        | —        | —           | —         |
| 19.     | Seer fishes  |             |        |                |            |             |          |           |        |             |          |          |             |           |
| a.      | <i>S. commersoni</i>                                   | 1,072       | 91     | 1,082          | 4,900      | 49          | 1,580    | 1,237     | 447    | 1,717       | 1,516    | 76       | 25          | 13,792    |
| b.      | <i>S. guttatus</i>                                     | 57          | 2,424  | 2,468          | 515        | 52          | 1,744    | 842       | 165    | 1,097       | 4,020    | 73       | 25          | 13,482    |
| c.      | <i>S. lineolatus</i>                                   | —           | 25     | 13             | 16         | —           | 6        | 188       | 31     | —           | —        | —        | —           | 279       |
| d.      | <i>Acanthocybium</i> spp.                              | —           | —      | —              | —          | —           | —        | —         | —      | —           | —        | —        | —           | —         |
| 20.     | Tunnies  |             |        |                |            |             |          |           |        |             |          |          |             |           |
| a.      | <i>E. affinis</i>                                      | —           | 105    | 194            | 3,062      | 6           | 4,076    | 2,516     | 48     | 235         | 1,383    | —        | 23          | 11,648    |
| b.      | <i>Auxis</i> spp                                       | —           | —      | —              | 77         | —           | 1,124    | 1         | —      | —           | —        | —        | —           | 1,202     |
| c.      | <i>K. pelamis</i>                                      | —           | —      | —              | 19         | —           | —        | —         | —      | 7           | —        | 33       | 1,744       | 1,803     |
| d.      | <i>T. tonggol</i>                                      | —           | —      | —              | —          | —           | 22       | —         | —      | 47          | 14       | —        | —           | 83        |
| e.      | Other tunnies  | —           | 145    | 144            | 662        | 49          | 287      | —         | 140    | 959         | 203      | 9        | 469         | 3,067     |
| 21.     | Bill fishes  | —           | 1      | 204            | 148        | 17          | 129      | 3         | 5      | 72          | —        | —        | 17          | 596       |
| 22.     | Barracudas ( <i>Sphyræna</i> )                         | —           | 9      | 124            | 948        | 50          | 812      | 75        | 38     | 16          | 1        | 40       | 12          | 2,125     |
| 23.     | Mullets ( <i>Mugil</i> )                               | 1           | —      | 182            | 409        | 5           | 120      | 1         | 206    | 35          | 1,118    | 78       | —           | 2,155     |
| 24.     | Unicorn cod ( <i>Bregmaceros</i> )                     | —           | —      | —              | —          | —           | —        | —         | —      | 13          | 451      | —        | —           | 464       |
| 25.     | Flat fishes  |             |        |                |            |             |          |           |        |             |          |          |             |           |
| a.      | Halibut ( <i>Psettodes erumei</i> )                    | —           | —      | 46             | 204        | 6           | 158      | —         | —      | 26          | 180      | —        | —           | 620       |
| b.      | Flounders  | —           | —      | 1,037          | 29         | —           | —        | —         | 727    | 69          | —        | —        | —           | 1,862     |
| c.      | Soles  | 4           | 47     | 1,130          | 1,198      | 188         | 4,876    | 545       | —      | 1,689       | 3,705    | —        | —           | 13,382    |
| 26.     | Crustaceans  |             |        |                |            |             |          |           |        |             |          |          |             |           |
| a.      | Penaeid prawns   | 244         | 1,328  | 6,728          | 13,548     | 336         | 22,268   | 4,122     | 2,237  | 21,717      | 10,985   | 26       | —           | 83,539    |
| b.      | Non penaeid prawns                                     | 1,251       | 55     | 1,607          | 704        | 53          | 160      | 4         | —      | 52,854      | 4,742    | —        | —           | 61,430    |
| c.      | Lobsters   | —           | 3      | 1              | 238        | 5           | 50       | —         | 9      | 388         | 786      | 1        | —           | 1,481     |
| d.      | Crabs  | —           | 147    | 1,512          | 9,168      | 236         | 168      | 650       | 526    | 112         | 14,083   | 14       | —           | 26,616    |
| e.      | Stomatopods  | —           | 145    | 288            | 317        | —           | 2,830    | 8,718     | 2,170  | 384         | 2,466    | —        | —           | 17,318    |
| 27.     | Cephalopods  | —           | 57     | 512            | 1,687      | 44          | 2,376    | 266       | 94     | 1,755       | 2,743    | —        | 14          | 9,548     |
| 28.     | Miscellaneous  | 1,466       | 982    | 2,644          | 11,684     | 393         | 4,251    | 14,678    | 1,279  | 5,487       | 7,453    | 87       | 186         | 50,590    |
| TOTAL   |  | 20,107      | 35,655 | 1,16,143       | 2,21,296   | 10,755      | 2,74,395 | 1,53,349  | 34,498 | 2,72,587    | 2,34,510 | 1,862    | 3,300       | 13,78,457 |

**Table 3.** Statewise break-up of the landings of pelagic and demersal group of fishes during 1981 (in tonnes)

| Sl.No. | State          | Pelagic  | Demersal | Total     |
|--------|----------------|----------|----------|-----------|
| 1.     | West Bengal    | 8,804    | 11,303   | 20,107    |
| 2.     | Orissa         | 16,528   | 19,127   | 35,655    |
| 3.     | Andhra Pradesh | 63,663   | 52,480   | 1,16,143  |
| 4.     | Tamil Nadu     | 95,609   | 1,25,687 | 2,21,296  |
| 5.     | Pondicherry    | 6,421    | 4,334    | 10,755    |
| 6.     | Kerala         | 2,03,431 | 70,964   | 2,74,395  |
| 7.     | Karnataka      | 1,18,545 | 34,804   | 1,53,349  |
| 8.     | Goa            | 18,261   | 16,237   | 34,498    |
| 9.     | Maharashtra    | 1,26,782 | 1,45,805 | 2,72,587  |
| 10.    | Gujarat        | 99,548   | 1,34,962 | 2,34,510  |
| 11.    | Andamans       | 1,263    | 599      | 1,862     |
| 12.    | Lakshadweep    | 2,701    | 599      | 3,300     |
| TOTAL  |                | 7,61,556 | 6,16,901 | 13,78,457 |

#### Statewise marine fish production

##### West Bengal

During 1981, the total marine fish landings in West Bengal were estimated at about 20,000 t in comparison to 6,000 t in 1980. However, it may be noted that during 1981, 24 Parganas district was covered for the first time in addition to Contai coast of Midnapore district in the regular survey programme for marine fish catch estimates in West Bengal. The species that were landed in substantial quantities were catfishes (4,400 t, 22%), pomfrets (3,300 t, 16%), hilsa shad (2,700 t, 13%), other clupeoids (2,400 t, 12%), non-penaeid prawns (1,300 t, 6%) and seer fish (1,100 t, 5%). Table 5 shows the specieswise composition of marine fish landings in West Bengal during the years 1976 to 1981. Prior to 1976, the estimates for West Bengal were combined with that of Orissa and the combined figures for West Bengal and Orissa are shown in Table 6 for the years 1969 to 1975.

##### Orissa

The total catch declined by about 3,700 t (9%) in 1981 as compared to previous year. The reduction in the total landings was mainly due to a fall in the catches of pomfrets and hilsa shad whose catches were lower by about 5,400 and 3,000 t respectively. The catch of catfishes and lesser sardines, however, increased by about 4,000 and 2,600 t respectively. Table 7 shows the specieswise composition of marine fish catch in Orissa for the years 1976 to 1981.

##### Andhra Pradesh

No variation was seen in the total catch during 1981, the estimated catch for 1980 and 1981 being about 1.16 lakh tonnes each. The species that showed an increase in their landings were white baits, silverbellies, catfishes, lesser sardines, penaeid prawns and perches, the increase being 7,600, 6,100, 1,900, 1,800, 1,500 and 1,000 t respectively. This was offset by the decrease in the landings of ribbon fish, *Thryssa*, mackerel, non-penaeid prawns and sciaenids, the decrease in their landings being 7,400, 4,800, 2,900, 2,700 and 2,500 t respectively. The specieswise composition of marine fish landings in Andhra Pradesh for the years 1971-1981 are shown in Table 8.

##### Tamil Nadu

The total landings in Tamil Nadu during 1981 increased marginally by about 4,000 t as compared to 1980 with a significant increase in the landings of silverbellies to the extent of about 13,000 t. The catch of penaeid prawns, other crustaceans and *Thryssa* also showed an increase of about 4,500, 3,300 and 1,400 t respectively. A decline in the landings of croakers, lesser sardines, white baits, elasmobranchs and seer fish by about 6,400, 5,500, 4,800, 2,200, 1,700 t respectively was also noticed. Table 9 shows the specieswise composition of marine fish catch in Tamil Nadu for the years 1971 to 1981.

##### Pondicherry

An increase of about 1,400 t (15%) in the total catch was noticed during 1981 when compared with that of 1980. While the landings of carangids, flying fish and perches increased by 1,200, 600 and 300 t respectively, the catch of lesser sardines declined by about 1,400 t. The specieswise composition of marine fish production in Pondicherry during the years 1971 to 1981 is shown in Table 10.

##### Kerala

The total catch in Kerala during 1981 declined marginally by about 5,100 t (2%) compared to the previous year. A significant increase in the catch of oil sardine by about 77,000 t was noticed. However, another major fishery of this state, prawn fishery, suffered a set back with a decline of about 30,000 t. This was to a great extent due to the fall in the catches of prawns in Sakthikulangara, to the tune of about 27,000 tonnes in 1981 as compared to 1980. The other important species that showed a decline in their landings were

Table 4. Composition of marine fish landings in India during 1971 to 1981 (in tonnes)

| Sl. No. | Name of fish                     | 1971      | 1972     | 1973      | 1974      | 1975      | 1976      | 1977      | 1978      | 1979      | 1980      | 1981      |
|---------|----------------------------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.      | Elasmobranchs                    | 41,348    | 46,237   | 44,917    | 66,054    | 65,230    | 54,605    | 62,216    | 61,621    | 52,843    | 57,862    | 56,009    |
| 2.      | Eels                             | 4,056     | 4,509    | 3,869     | 4,011     | 5,710     | 8,296     | 12,997    | 8,781     | 7,155     | 12,082    | 5,027     |
| 3.      | Catfishes                        | 48,858    | 42,443   | 52,642    | 76,196    | 68,689    | 43,540    | 53,504    | 39,231    | 48,817    | 43,745    | 59,390    |
| 4.      | <i>Chirocentrus</i>              | 9,366     | 9,532    | 11,090    | 9,026     | 11,813    | 10,368    | 11,909    | 10,990    | 10,274    | 12,805    | 11,794    |
| 5.      | a. Oil sardine                   | 2,09,261  | 1,27,568 | 1,44,395  | 1,26,676  | 1,59,240  | 1,69,262  | 1,50,130  | 1,68,078  | 1,53,971  | 1,15,744  | 2,21,026  |
|         | b. Lesser sardines               | 61,283    | 44,629   | 1,08,523  | 83,921    | 1,12,117  | 1,00,000  | 65,724    | 52,838    | 68,351    | 67,053    | 61,980    |
|         | c. <i>Hilsa ilisha</i>           | 1,769     | 1,409    | 404       | 4,248     | 8,897     | 7,842     | 4,189     | 9,894     | 12,068    | 6,996     | 5,407     |
|         | d. Other <i>Hilsa</i>            | 10,361    | 12,229   | 11,918    | 7,541     | 7,567     | 8,482     | 14,651    | 12,800    | 8,672     | 9,127     | 18,267    |
|         | e. <i>Anchoviella</i>            | 19,516    | 18,699   | 25,394    | 41,507    | 30,744    | 30,069    | 34,033    | 39,054    | 26,588    | 33,684    | 33,383    |
|         | f. <i>Thrissocles</i>            | 10,801    | 11,130   | 13,194    | 11,433    | 9,997     | 17,660    | 9,929     | 14,304    | 16,628    | 19,342    | 13,637    |
|         | g. Other clupeoids               | 24,100    | 28,490   | 35,350    | 43,226    | 52,786    | 57,164    | 41,458    | 37,020    | 33,965    | 38,270    | 44,999    |
| 6.      | a. <i>Harpodon nehereus</i>      | 71,508    | 51,570   | 64,345    | 61,138    | 99,614    | 87,075    | 85,236    | 1,25,481  | 1,26,044  | 95,505    | 1,37,790  |
|         | b. <i>Saurida &amp; Saurus</i>   | 3,687     | 4,748    | 4,049     | 12,520    | 14,323    | 5,292     | 8,525     | 10,808    | 11,154    | 11,332    | 10,982    |
| 7.      | <i>Hemirhamphus &amp; Belone</i> | 1,018     | 687      | 1,110     | 4,574     | 1,980     | 1,169     | 2,311     | 1,478     | 1,577     | 1,653     | 1,799     |
| 8.      | Flying fish                      | 9,179     | 1,415    | 6,388     | 1,012     | 1,832     | 1,439     | 643       | 1,681     | 2,546     | 1,255     | 3,109     |
| 9.      | Perches                          | 12,993    | 15,247   | 21,513    | 36,837    | 35,232    | 18,162    | 31,799    | 49,312    | 35,657    | 38,541    | 31,325    |
| 10.     | Red mullets                      | 3,881     | 6,004    | 3,925     | 7,009     | 2,641     | 5,216     | 2,422     | 2,984     | 3,130     | 2,416     | 3,453     |
| 11.     | Polynemids                       | 7,252     | 7,100    | 9,248     | 10,637    | 14,044    | 14,573    | 3,929     | 5,469     | 5,809     | 6,056     | 4,248     |
| 12.     | Sciaenids                        | 36,903    | 40,159   | 87,682    | 79,261    | 1,14,535  | 87,581    | 99,887    | 96,379    | 93,018    | 89,360    | 82,686    |
| 13.     | Ribbon fish                      | 44,690    | 36,225   | 53,106    | 63,029    | 57,330    | 64,542    | 42,407    | 77,785    | 71,349    | 62,690    | 41,569    |
| 14.     | a. <i>Caranx</i>                 | 20,592    | 27,009   | 25,298    | 19,316    | 23,005    | 25,745    | 30,666    | 16,956    | 28,942    | 24,265    | 9,166     |
|         | b. <i>Chorinemus</i>             | 2,109     | 2,952    | 2,827     | 3,797     | 3,380     | 3,322     | 4,119     | 3,359     | 3,307     | 4,182     | 4,985     |
|         | c. <i>Trachynotus</i>            | 17        | 2        | 189       | 122       | 64        | 35        | 80        | 106       | 195       | 40        |           |
|         | d. Other carangids               | 304       | 308      | 129       | 91        | 207       | 1,572     | 219       | 423       | 465       | 945       |           |
|         | e. <i>Coryphaena</i>             | 59        | 222      | 228       | 286       | 411       | 261       | 226       | 64        | 146       | 302       | 23,194    |
|         | f. <i>Elacate</i>                | 347       | 403      | 529       | 229       | 221       | 383       | 429       | 568       | 880       | 379       |           |
| 15.     | a. <i>Lelognathus</i>            | 32,510    | 32,314   | 48,127    | 50,902    | 39,813    | 42,445    | 34,504    | 41,777    | 55,266    | 54,400    | 69,449    |
|         | b. <i>Gazza</i>                  | 156       | 78       | 41        | 338       | 424       | 966       | 61        | 104       | 197       | 186       |           |
| 16.     | <i>Lactarius</i>                 | 5,313     | 7,579    | 13,912    | 8,913     | 11,848    | 12,045    | 10,961    | 7,906     | 4,474     | 7,415     | 8,211     |
| 17.     | Pomfrets                         | 21,000    | 19,007   | 22,052    | 22,421    | 24,987    | 37,701    | 35,127    | 41,434    | 40,427    | 38,231    | 48,728    |
| 18.     | Mackerel                         | 2,04,575  | 1,08,971 | 79,423    | 37,462    | 45,947    | 65,497    | 62,136    | 85,233    | 71,514    | 55,279    | 48,660    |
| 19.     | Seer fish                        | 18,339    | 21,210   | 19,700    | 19,841    | 18,897    | 20,159    | 21,119    | 20,779    | 29,547    | 25,986    | 27,553    |
| 20.     | Tunnies                          | 6,032     | 5,760    | 5,678     | 10,839    | 11,285    | 19,322    | 13,005    | 13,893    | 26,595    | 20,371    | 17,803    |
| 21.     | <i>Sphyræna</i>                  | 1,271     | 2,367    | 3,415     | 4,862     | 2,150     | 2,388     | 2,423     | 3,709     | 2,265     | 1,782     | 2,125     |
| 22.     | <i>Mugil</i>                     | 3,737     | 1,559    | 3,138     | 4,497     | 3,515     | 2,613     | 2,269     | 2,626     | 1,400     | 2,030     | 2,155     |
| 23.     | <i>Bregmaceros</i>               | 4,345     | 5,488    | 4,213     | 1,872     | 1,043     | 380       | 30        | 184       | 638       | 916       | 464       |
| 24.     | Soles                            | 11,380    | 9,718    | 14,642    | 18,917    | 12,044    | 10,088    | 10,810    | 13,620    | 12,203    | 13,633    | 15,864    |
| 25.     | a. Penaeid prawns                | 72,109    | 78,361   | 1,36,514  | 1,14,934  | 1,41,713  | 1,14,640  | 96,472    | 1,29,204  | 1,13,665  | 1,12,037  | 83,539    |
|         | b. Non-penaeid prawns            | 76,734    | 85,488   | 66,955    | 55,244    | 79,038    | 76,787    | 73,992    | 50,652    | 63,917    | 58,700    | 61,430    |
|         | c. Lobsters                      | —         | —        | —         | —         | 2,991     | 2,532     | 1,217     | 1,307     | 1,135     | 679       | 1,481     |
|         | d. Crabs & other crustaceans     | 9,612     | 11,599   | 12,508    | 16,663    | 19,893    | 19,999    | 20,068    | 14,202    | 20,304    | 25,386    | 43,934    |
| 26.     | Cephalopods                      | 1,505     | 1,026    | 1,394     | 3,677     | 7,889     | 10,826    | 10,005    | 15,931    | 15,032    | 11,335    | 9,548     |
| 27.     | Miscellaneous                    | 37,513    | 48,598   | 56,266    | 72,718    | 97,607    | 90,812    | 91,945    | 1,13,582  | 1,06,250  | 65,840    | 52,288    |
| TOTAL   |                                  | 11,61,389 | 9,80,049 | 12,20,240 | 12,17,797 | 14,22,693 | 13,52,855 | 12,59,782 | 14,03,607 | 13,88,380 | 12,49,837 | 13,78,457 |

In Tables 4 to 17, for purpose of comparison with previous years, the following fishes have been included in the groups mentioned against them for the year 1981. (1) *Coilia* and *Setipinna* in other clupeoids and miscellaneous respectively. (2) Bill fishes in miscellaneous (3) Stomatopods in Crabs and other crustaceans.

**Table 5.** *Composition of marine fish landings in West Bengal during 1976 to 1981 (in tonnes)*

| Sl.No. | Name of fish                     | 1976   | 1977  | 1978   | 1979   | 1980  | 1981   |
|--------|----------------------------------|--------|-------|--------|--------|-------|--------|
| 1.     | Elasmobranchs                    | 493    | 73    | 125    | 244    | 114   | 594    |
| 2.     | Eels                             | 1      | 1     | —      | —      | —     | —      |
| 3.     | Catfishes                        | 785    | 134   | 151    | 140    | 723   | 4,449  |
| 4.     | <i>Chirocentrus</i>              | 251    | 107   | 217    | 407    | 276   | 296    |
| 5. a.  | Oil sardine                      | —      | —     | —      | —      | —     | —      |
| b.     | Lesser sardines                  | 12     | —     | 4      | —      | —     | —      |
| c.     | <i>Hilsa ilisha</i>              | 799    | 96    | 193    | 660    | 644   | 2,672  |
| d.     | Other <i>Hilsa</i>               | —      | —     | 28     | 38     | 20    | 44     |
| e.     | <i>Anchoviella</i>               | 6      | 4     | 24     | 14     | —     | 4      |
| f.     | <i>Thrissocles</i>               | 1,397  | 365   | 774    | 270    | 194   | 66     |
| g.     | Other clupeoids                  | 1,790  | 705   | 1,174  | 1,517  | 674   | 2,652  |
| 6. a.  | <i>Harpodon nehereus</i>         | 2,253  | 1,060 | 1,365  | 1,211  | 419   | 618    |
| b.     | <i>Saurida &amp; Saurus</i>      | —      | —     | —      | —      | —     | —      |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | —      | —     | 11     | —      | —     | 1      |
| 8.     | Flying fish                      | —      | —     | —      | —      | —     | —      |
| 9.     | Perches                          | 1      | —     | —      | 225    | 13    | 37     |
| 10.    | Red mullets                      | —      | —     | —      | —      | —     | —      |
| 11.    | Polynemids                       | 69     | 25    | 87     | 172    | 186   | 312    |
| 12.    | Sciaenids                        | 4,066  | 819   | 1,772  | 915    | 358   | 270    |
| 13.    | Ribbon fish                      | 701    | 306   | 681    | 291    | 142   | 161    |
| 14. a. | <i>Caranx</i>                    | —      | —     | 2      | 71     | —     | —      |
| b.     | <i>Chorinemus</i>                | 37     | 12    | 38     | 67     | 130   | 62     |
| c.     | <i>Trachynotus</i>               | —      | —     | —      | —      | —     | —      |
| d.     | Other carangids                  | —      | —     | —      | —      | —     | —      |
| e.     | <i>Coryphaena</i>                | —      | —     | —      | —      | —     | —      |
| f.     | <i>Elacate</i>                   | —      | —     | —      | —      | —     | —      |
| 15. a. | <i>Leiognathus</i>               | 219    | 15    | 297    | 96     | 34    | —      |
| b.     | <i>Gazza</i>                     | —      | —     | —      | —      | —     | —      |
| 16.    | <i>Lactarius</i>                 | —      | 1     | —      | —      | —     | —      |
| 17.    | Pomfrets                         | 586    | 143   | 282    | 923    | 921   | 3,318  |
| 18.    | Mackerel                         | —      | —     | —      | —      | —     | —      |
| 19.    | Seer fish                        | 287    | 32    | 54     | 331    | 234   | 1,129  |
| 20.    | Tunnies                          | —      | —     | —      | —      | —     | —      |
| 21.    | <i>Sphyraena</i>                 | —      | —     | —      | —      | —     | —      |
| 22.    | <i>Mugil</i>                     | 2      | —     | —      | —      | —     | 1      |
| 23.    | <i>Bregmaceros</i>               | —      | —     | —      | —      | —     | —      |
| 24.    | Soles                            | —      | —     | 24     | —      | 3     | 4      |
| 25. a. | Penaeid prawns                   | 2,139  | 602   | 605    | 410    | 152   | 244    |
| b.     | Non penaeid prawns               | 2,708  | 269   | 663    | 161    | 48    | 1,251  |
| c.     | Lobsters                         | —      | —     | —      | —      | —     | —      |
| d.     | Other crustaceans                | —      | —     | —      | —      | 20    | —      |
| 26.    | Cephalopods                      | —      | —     | 30     | —      | 4     | —      |
| 27.    | Miscellaneous                    | 6,809  | 1,920 | 4,153  | 2,581  | 788   | 1,922  |
| TOTAL  |                                  | 25,411 | 6,689 | 12,754 | 10,744 | 6,097 | 20,107 |

**Table 6.** Composition of marine fish landings in West Bengal & Orissa during 1969 to 1975 (in tonnes)

| Sl.No. | Name of fish                     | 1969   | 1970   | 1971   | 1972   | 1973   | 1974   | 1975   |
|--------|----------------------------------|--------|--------|--------|--------|--------|--------|--------|
| 1.     | Elasmobranchs                    | 492    | 1,167  | 325    | 829    | 833    | 1,672  | 1,450  |
| 2.     | Eels                             | —      | —      | 8      | 24     | 43     | 84     | 4      |
| 3.     | Catfishes                        | 191    | 446    | 315    | 525    | 534    | 1,232  | 3,383  |
| 4.     | <i>Chirocentrus</i>              | 1,025  | 1,163  | 464    | 334    | 737    | 565    | 687    |
| 5.     | a. Oil sardine                   | 247    | —      | 2      | —      | 38     | 4      | —      |
|        | b. Lesser sardines               | 3,905  | 3,058  | 2,044  | 1,442  | 2,035  | 1,740  | 957    |
|        | c. <i>Hilsa ilisha</i>           | 47     | 289    | 104    | 37     | 162    | 3,513  | 5,254  |
|        | d. Other <i>Hilsa</i>            | 22     | —      | 77     | 7      | 203    | 207    | 181    |
|        | e. <i>Anchoviella</i>            | 900    | 510    | 316    | 673    | 768    | 362    | 207    |
|        | f. <i>Thrissocles</i>            | 234    | 806    | 222    | 374    | 160    | 785    | 1,608  |
|        | g. Other clupeoids               | 2,737  | 7,112  | 1,342  | 819    | 3,408  | 2,122  | 3,436  |
| 6.     | a. <i>Harpodon nehereus</i>      | 1,348  | 818    | 1,031  | 924    | 1,984  | 1,326  | 3,043  |
|        | b. <i>Saurida &amp; Saurus</i>   | 26     | 89     | 10     | 9      | 3      | 5      | 6      |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 5      | 6      | 3      | 4      | 1      | —      | 5      |
| 8.     | Flying fish                      | —      | —      | —      | —      | —      | —      | —      |
| 9.     | Perches                          | 4      | 30     | 121    | 50     | 104    | 38     | 201    |
| 10.    | Red mullets                      | 34     | —      | 5      | 10     | 4      | 20     | 14     |
| 11.    | Polynemids                       | 50     | 258    | 88     | 88     | 136    | 313    | 224    |
| 12.    | Sciaenids                        | 1,274  | 2,617  | 2,727  | 2,479  | 1,323  | 1,671  | 4,474  |
| 13.    | Ribbon fish                      | 581    | 1,470  | 825    | 530    | 902    | 550    | 1,252  |
| 14.    | a. <i>Caranx</i>                 | 372    | 844    | 91     | 79     | 132    | 27     | 237    |
|        | b. <i>Chorinemus</i>             | 100    | 91     | 70     | 74     | 172    | 212    | 165    |
|        | c. <i>Trachynotus</i>            | —      | —      | —      | —      | —      | —      | —      |
|        | d. Other carangids               | —      | —      | —      | —      | —      | 1      | 2      |
|        | e. <i>Coryphaena</i>             | —      | —      | —      | —      | —      | —      | —      |
|        | f. <i>Elacate</i>                | —      | —      | —      | —      | —      | 16     | 1      |
| 15.    | a. <i>Leiognathus</i>            | 937    | 891    | 317    | 921    | 438    | 399    | 552    |
|        | b. <i>Gazza</i>                  | —      | —      | 4      | —      | —      | —      | —      |
| 16.    | <i>Lactarius</i>                 | 5      | 58     | 8      | 29     | 7      | 24     | 6      |
| 17.    | Pomfrets                         | 423    | 426    | 643    | 634    | 728    | 1,110  | 2,501  |
| 18.    | Mackerel                         | 28     | 1,764  | 398    | 102    | 80     | 211    | 116    |
| 19.    | Seer fish                        | 612    | 826    | 338    | 329    | 769    | 1,169  | 554    |
| 20.    | Tunnies                          | —      | 1      | 42     | 28     | 46     | 9      | 16     |
| 21.    | <i>Sphyræna</i>                  | —      | 6      | 9      | 6      | 1      | 5      | 3      |
| 22.    | <i>Mugil</i>                     | 13     | 37     | 23     | 68     | 18     | 40     | 44     |
| 23.    | <i>Bregmaceros</i>               | —      | —      | —      | —      | —      | —      | —      |
| 24.    | Soles                            | 45     | 57     | 8      | 41     | 24     | 100    | 30     |
| 25.    | a. Penaeid prawns                | 5,638  | 2,994  | 1,314  | 1,471  | 2,565  | 2,322  | 2,920  |
|        | b. Non penaeid prawns            | —      | 22     | 86     | —      | 486    | 1,165  | 2,787  |
|        | c. Other crustaceans             | —      | 3      | 1      | 3      | 60     | 45     | 8      |
| 26.    | Cephalopods                      | 2      | 3      | 89     | 7      | 7      | —      | 2      |
| 27.    | Miscellaneous                    | 1,582  | 3,541  | 4,462  | 2,380  | 3,825  | 3,028  | 9,431  |
| TOTAL  |                                  | 22,879 | 31,403 | 18,032 | 15,330 | 22,736 | 26,092 | 45,761 |

**Table 7.** *Composition of marine fish landings in Orissa during 1976 to 1981 (in tonnes)*

| Sl.No. | Name of Fish                     | 1976   | 1977   | 1978   | 1979   | 1980   | 1981   |
|--------|----------------------------------|--------|--------|--------|--------|--------|--------|
| 1.     | Elasmobranchs                    | 2,974  | 1,658  | 3,386  | 4,331  | 3,772  | 3,210  |
| 2.     | Eels                             | 1      | —      | 3      | 2      | —      | 24     |
| 3.     | Catfishes                        | 1,988  | 1,035  | 1,794  | 1,308  | 2,198  | 6,084  |
| 4.     | <i>Chirocentrus</i>              | 517    | 752    | 1,073  | 1,644  | 1,460  | 1,281  |
| 5. a.  | Oil sardine                      | —      | —      | —      | —      | —      | —      |
| b.     | Lesser sardines                  | 1,657  | 1,227  | 2,514  | 2,687  | 1,891  | 4,535  |
| c.     | <i>Hilsa ilisha</i>              | 5,477  | 2,948  | 7,737  | 9,969  | 5,091  | 2,085  |
| d.     | Other <i>Hilsa</i>               | 129    | 492    | 848    | 359    | 46     | 353    |
| e.     | <i>Anchoviella</i>               | 339    | 486    | 1,169  | 505    | 270    | 86     |
| f.     | <i>Thrissoles</i>                | 106    | 197    | 175    | 295    | 333    | 322    |
| g.     | Other clupeoids                  | 772    | 778    | 1,330  | 1,431  | 2,576  | 2,093  |
| 6. a.  | <i>Harpodon nehereus</i>         | 87     | 86     | 314    | 449    | 378    | 73     |
| b.     | <i>Saurida &amp; Saurus</i>      | 1      | 5      | 5      | 50     | 189    | 108    |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 1      | —      | 13     | 28     | 46     | 2      |
| 8.     | Flying fish                      | —      | —      | 4      | 4      | 17     | —      |
| 9.     | Perches                          | 31     | 55     | 173    | 151    | 341    | 122    |
| 10.    | Red mullets                      | 1      | 1      | 2      | 2      | 296    | 104    |
| 11.    | Polynemids                       | 244    | 406    | 1,287  | 1,491  | 1,126  | 566    |
| 12.    | Sciaenids                        | 333    | 312    | 5,198  | 5,351  | 2,864  | 2,133  |
| 13.    | Ribbon fish                      | 130    | 174    | 336    | 616    | 928    | 995    |
| 14. a. | <i>Caranx</i>                    | 147    | 103    | 68     | 326    | 607    | 165    |
| b.     | <i>Chorinemus</i>                | 237    | 386    | 815    | 716    | 567    | 196    |
| c.     | <i>Trachynotus</i>               | —      | —      | —      | —      | —      | —      |
| d.     | Other carangids                  | —      | —      | —      | —      | —      | 150    |
| e.     | <i>Coryphaena</i>                | 2      | 1      | —      | 1      | —      | —      |
| f.     | <i>Elacate</i>                   | —      | 9      | 3      | 1      | —      | —      |
| 15. a. | <i>Leiognathus</i>               | 378    | 233    | 256    | 1,108  | 704    | 733    |
| b.     | <i>Gazza</i>                     | 1      | —      | —      | —      | 3      | —      |
| 16.    | <i>Lactarius</i>                 | 1      | 18     | 12     | 5      | 65     | 49     |
| 17.    | Pomfrets                         | 10,699 | 1,018  | 5,714  | 10,109 | 9,072  | 3,685  |
| 18.    | Mackerel                         | 425    | 195    | 196    | 306    | 265    | 823    |
| 19.    | Seer fish                        | 940    | 672    | 1,059  | 2,444  | 1,542  | 2,540  |
| 20.    | Tunnies                          | 84     | 37     | 609    | 31     | 34     | 250    |
| 21.    | <i>Sphyræna</i>                  | 1      | 3      | 4      | 5      | 8      | 9      |
| 22.    | <i>Mugil</i>                     | 5      | —      | 3      | 22     | 1      | —      |
| 23.    | <i>Bregmaceros</i>               | —      | —      | —      | —      | —      | —      |
| 24.    | Soles                            | 6      | 72     | 103    | 125    | 69     | 47     |
| 25. a. | Penaeid prawns                   | 688    | 802    | 2,599  | 2,983  | 1,074  | 1,328  |
| b.     | Non penaeid prawns               | 100    | 17     | 12     | 34     | 30     | 55     |
| c.     | Lobsters                         | —      | —      | —      | —      | —      | 3      |
| d.     | Other crustaceans                | 23     | 6      | 4      | 6      | 359    | 292    |
| 26.    | Cephalopods                      | 27     | —      | 4      | 14     | 98     | 57     |
| 27.    | Miscellaneous                    | 1,271  | 888    | 848    | 2,899  | 1,055  | 1,097  |
| TOTAL  |                                  | 29,823 | 15,072 | 39,670 | 51,808 | 39,375 | 35,655 |



**Table 8.** Composition of marine fish landings in Andhra Pradesh during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971   | 1972   | 1973   | 1974     | 1975     | 1976     | 1977     | 1978   | 1979   | 1980     | 1981     |
|--------|----------------------------------|--------|--------|--------|----------|----------|----------|----------|--------|--------|----------|----------|
| 1.     | Elasmobranchs                    | 4,530  | 7,400  | 8,354  | 11,394   | 9,977    | 6,688    | 6,450    | 8,704  | 6,994  | 4,842    | 5,236    |
| 2.     | Eels                             | 107    | 110    | 270    | 451      | 1,837    | 205      | 438      | 1,082  | 245    | 289      | 406      |
| 3.     | Catfishes                        | 2,724  | 3,651  | 10,780 | 15,890   | 9,824    | 6,131    | 5,662    | 3,281  | 3,799  | 2,338    | 4,250    |
| 4.     | <i>Chirocentrus</i>              | 1,439  | 2,248  | 2,635  | 2,281    | 2,920    | 1,837    | 1,217    | 1,262  | 976    | 1,123    | 1,111    |
| 5.     | a. Oil sardine                   | —      | —      | 125    | 564      | 131      | 112      | —        | —      | —      | —        | —        |
|        | b. Lesser sardines               | 19,949 | 7,587  | 11,928 | 31,520   | 32,994   | 23,220   | 10,972   | 7,685  | 6,180  | 13,930   | 15,719   |
|        | c. <i>Hilsa ilisha</i>           | 796    | 220    | 45     | —        | 70       | 280      | 41       | 2      | 78     | 96       | 40       |
|        | d. Other <i>Hilsa</i>            | 769    | 3,087  | 2,783  | 2,347    | 930      | 1,815    | 1,654    | 1,349  | 1,092  | 1,267    | 1,343    |
|        | e. <i>Anchoviella</i>            | 1,332  | 2,905  | 4,865  | 9,869    | 7,037    | 11,309   | 8,947    | 7,810  | 5,888  | 6,182    | 13,829   |
|        | f. <i>Thrissocles</i>            | 953    | 1,111  | 2,486  | 1,895    | 1,776    | 1,763    | 1,398    | 1,824  | 3,433  | 7,326    | 2,523    |
|        | g. Other clupeoids               | 6,004  | 8,892  | 9,184  | 10,195   | 7,536    | 8,410    | 2,363    | 1,794  | 2,518  | 5,486    | 4,996    |
| 6.     | a. <i>Harpodon nehereus</i>      | 778    | 297    | 221    | 125      | 359      | 214      | 960      | 1,099  | 717    | 611      | 845      |
|        | b. <i>Saurida &amp; Saurus</i>   | 112    | 504    | 386    | 267      | 242      | 166      | 875      | 1,057  | 1,379  | 931      | 1,024    |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 208    | 17     | 3      | 194      | 24       | 14       | 135      | 60     | 100    | 97       | 29       |
| 8.     | Flying fish                      | 247    | 52     | 105    | 2        | 1        | —        | 84       | 65     | 71     | 43       | —        |
| 9.     | Perches                          | 1,466  | 1,485  | 1,470  | 2,213    | 4,888    | 1,751    | 2,727    | 1,945  | 3,095  | 4,639    | 5,694    |
| 10.    | Red mullets                      | 372    | 447    | 220    | 305      | 721      | 553      | 315      | 335    | 426    | 349      | 684      |
| 11.    | Polynemids                       | 1,570  | 2,185  | 1,393  | 2,231    | 1,836    | 1,813    | 698      | 1,075  | 1,412  | 1,448    | 776      |
| 12.    | Sciaenids                        | 5,954  | 7,277  | 7,576  | 12,358   | 11,682   | 10,891   | 10,182   | 5,597  | 8,825  | 9,496    | 7,046    |
| 13.    | Ribbon fish                      | 7,432  | 3,585  | 3,761  | 11,834   | 11,701   | 12,443   | 8,546    | 5,505  | 6,337  | 15,646   | 8,207    |
| 14.    | a. <i>Caranx</i>                 | 2,484  | 2,425  | 2,589  | 2,901    | 3,498    | 3,047    | 4,003    | 2,000  | 3,185  | 5,981    | 3,798    |
|        | b. <i>Chorinemus</i>             | 533    | 552    | 1,056  | 1,620    | 1,790    | 1,820    | 530      | 665    | 444    | 710      | 453      |
|        | c. <i>Trachynotus</i>            | —      | —      | —      | —        | 6        | 1        | —        | —      | —      | —        | —        |
|        | d. Other carangids               | 15     | —      | —      | —        | 6        | 5        | 78       | 87     | 56     | 97       | —        |
|        | e. <i>Coryphaena</i>             | 17     | 106    | 36     | 101      | 251      | 89       | 137      | 24     | 7      | 3        | 1,415    |
|        | f. <i>Elacate</i>                | 2      | 38     | 56     | 2        | 25       | 14       | 7        | 53     | —      | 19       | —        |
| 15.    | a. <i>Leiognathus</i>            | 2,247  | 2,971  | 2,806  | 4,830    | 11,268   | 3,876    | 5,903    | 2,174  | 3,585  | 3,775    | 9,856    |
|        | b. <i>Gazza</i>                  | —      | 1      | 3      | 12       | 101      | 48       | —        | —      | —      | 56       | —        |
| 16.    | <i>Lactorius</i>                 | 841    | 1,396  | 982    | 1,914    | 2,513    | 1,718    | 1,132    | 684    | 945    | 940      | 817      |
| 17.    | Pomfrets                         | 3,591  | 4,165  | 4,087  | 3,945    | 5,697    | 4,088    | 2,529    | 2,445  | 2,069  | 2,201    | 2,698    |
| 18.    | Mackerel                         | 1,402  | 5,396  | 2,519  | 1,734    | 1,593    | 2,084    | 1,040    | 2,520  | 2,621  | 6,203    | 3,255    |
| 19.    | Seer fish                        | 3,352  | 5,830  | 4,054  | 4,438    | 5,277    | 3,412    | 3,261    | 2,600  | 5,547  | 2,970    | 3,563    |
| 20.    | Tunnies                          | 293    | 495    | 141    | 683      | 664      | 334      | 449      | 328    | 437    | 419      | 338      |
| 21.    | <i>Sphyraena</i>                 | 70     | 88     | 18     | 19       | 119      | 187      | 108      | 43     | 62     | 88       | 124      |
| 22.    | <i>Mugil</i>                     | 543    | 118    | 255    | 1,848    | 954      | 892      | 170      | 237    | 159    | 27       | 182      |
| 23.    | <i>Bregmaceros</i>               | —      | —      | —      | —        | —        | —        | —        | —      | —      | —        | —        |
| 24.    | Soles                            | 79     | 215    | 187    | 220      | 305      | 56       | 680      | 347    | 610    | 573      | 2,213    |
| 25.    | a. Penaeid prawns                | 8,917  | 5,145  | 8,170  | 9,857    | 7,152    | 8,833    | 6,266    | 8,031  | 8,697  | 5,660    | 6,728    |
|        | b. Non penaeid prawns            | 288    | 437    | 669    | 2,842    | 3,523    | 2,275    | 5,109    | 1,532  | 3,117  | 4,346    | 1,607    |
|        | c. Lobsters                      | —      | —      | —      | —        | 102      | 3        | 2        | 20     | 33     | 10       | 1        |
|        | d. Crabs & other crustaceans     | 95     | 279    | 364    | 934      | 605      | 329      | 719      | 477    | 1,109  | 1,413    | 1,800    |
| 26.    | Cephalopods                      | 114    | 67     | 61     | 165      | 151      | 242      | 408      | 297    | 523    | 470      | 512      |
| 27.    | Miscellaneous                    | 2,385  | 2,596  | 2,901  | 4,818    | 3,552    | 8,353    | 4,561    | 6,021  | 4,655  | 3,913    | 3,025    |
| TOTAL  |                                  | 84,010 | 84,480 | 99,544 | 1,58,818 | 1,55,638 | 1,31,321 | 1,00,756 | 82,116 | 91,426 | 1,16,013 | 1,16,143 |

Table 9. Composition of marine fish landings in Tamil Nadu during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971     | 1972     | 1973     | 1974     | 1975     | 1976     | 1977     | 1978     | 1979     | 1980     | 1981     |
|--------|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1.     | Elasmobranchs                    | 16,913   | 12,960   | 12,844   | 23,025   | 20,614   | 19,039   | 18,327   | 15,121   | 12,393   | 15,442   | 13,242   |
| 2.     | Eels                             | 147      | 47       | 121      | 296      | 110      | 620      | 232      | 325      | 119      | 85       | 93       |
| 3.     | Catfishes                        | 7,219    | 5,353    | 9,861    | 10,322   | 7,469    | 5,033    | 15,205   | 5,252    | 5,617    | 4,047    | 3,792    |
| 4.     | <i>Chirocentrus</i>              | 2,952    | 2,320    | 3,178    | 1,625    | 1,811    | 2,058    | 2,475    | 1,736    | 1,839    | 2,695    | 1,820    |
| 5.     | a. Oil sardine                   | 45       | 146      | 45       | —        | —        | —        | 714      | 36       | 1,011    | 320      | 195      |
|        | b. Lesser sardines               | 23,562   | 21,051   | 26,059   | 15,430   | 35,610   | 25,169   | 26,259   | 21,050   | 33,289   | 29,940   | 24,448   |
|        | c. <i>Hilsa ilisha</i>           | 191      | 170      | 10       | 14       | 121      | 22       | 343      | 161      | 41       | 37       | 52       |
|        | d. Other <i>Hilsa</i>            | 2,804    | 2,088    | 1,349    | 681      | 1,158    | 2,331    | 5,784    | 4,166    | 2,761    | 3,084    | 3,516    |
|        | e. <i>Anchoviella</i>            | 5,162    | 4,378    | 9,105    | 10,745   | 10,873   | 7,869    | 13,388   | 7,447    | 11,061   | 13,126   | 8,357    |
|        | f. <i>Thrissocles</i>            | 4,968    | 5,278    | 4,821    | 4,645    | 3,127    | 8,362    | 3,008    | 4,719    | 5,542    | 5,048    | 6,465    |
|        | g. Other clupeoids               | 2,193    | 3,107    | 3,706    | 2,815    | 5,406    | 15,851   | 2,652    | 3,043    | 3,564    | 1,833    | 5,241    |
| 6.     | a. <i>Harpodon nehereus</i>      | 13       | 48       | 235      | —        | 1        | —        | 14       | —        | 1        | 6        | 3        |
|        | b. <i>Saurida &amp; Saurus</i>   | 1,395    | 923      | 871      | 1,196    | 1,026    | 823      | 572      | 1,100    | 1,498    | 1,123    | 1,455    |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 492      | 403      | 675      | 3,949    | 1,482    | 717      | 1,574    | 759      | 624      | 749      | 819      |
| 8.     | Flying fish                      | 8,375    | 1,290    | 6,221    | 726      | 1,657    | 1,232    | 526      | 1,092    | 1,599    | 1,106    | 2,460    |
| 9.     | Perches                          | 5,743    | 6,350    | 4,914    | 8,426    | 8,153    | 5,341    | 7,918    | 9,241    | 5,919    | 6,886    | 6,453    |
| 10.    | Red mullets                      | 1,268    | 1,311    | 1,010    | 1,959    | 1,566    | 626      | 832      | 1,963    | 1,448    | 1,079    | 1,116    |
| 11.    | Polynemids                       | 1,615    | 906      | 1,806    | 877      | 1,339    | 1,944    | 1,592    | 706      | 353      | 629      | 236      |
| 12.    | Sciaenids                        | 5,495    | 6,221    | 10,607   | 9,943    | 10,096   | 10,562   | 13,756   | 14,239   | 18,948   | 19,547   | 13,140   |
| 13.    | Ribbon fish                      | 10,897   | 10,498   | 9,625    | 8,369    | 17,782   | 19,054   | 4,594    | 28,664   | 21,040   | 7,862    | 7,605    |
| 14.    | a. <i>Caranx</i>                 | 8,486    | 7,109    | 5,624    | 5,188    | 6,225    | 7,082    | 6,120    | 3,104    | 7,022    | 5,405    | 1,281    |
|        | b. <i>Chorinemus</i>             | 1,343    | 1,045    | 843      | 1,541    | 1,090    | 646      | 1,465    | 971      | 844      | 1,111    | 608      |
|        | c. <i>Trachinotus</i>            | 11       | —        | —        | 2        | —        | 28       | 73       | 84       | 182      | 38       | —        |
|        | d. Other carangids               | 24       | 29       | 9        | 2        | 8        | 907      | 22       | 171      | 23       | 188      | —        |
|        | e. <i>Coryphaena</i>             | 41       | 24       | 32       | 77       | 65       | 105      | 58       | 18       | 37       | 141      | —        |
|        | f. <i>Elacate</i>                | 31       | 280      | 75       | 101      | 87       | 217      | 230      | 239      | 535      | 148      | —        |
| 15.    | a. <i>Leiognathus</i>            | 18,913   | 21,564   | 22,133   | 23,906   | 20,142   | 29,664   | 17,783   | 30,281   | 42,886   | 38,153   | —        |
|        | b. <i>Gazza</i>                  | 5        | 62       | 34       | 28       | 29       | 6        | 54       | 104      | 197      | 84       | —        |
| 16.    | <i>Lactarius</i>                 | 640      | 1,348    | 2,823    | 722      | 1,822    | 775      | 740      | 840      | 1,323    | 938      | 818      |
| 17.    | Pomfrets                         | 834      | 461      | 1,705    | 720      | 1,303    | 822      | 628      | 789      | 877      | 1,306    | 670      |
| 18.    | Mackerel                         | 2,983    | 7,838    | 8,843    | 2,639    | 5,826    | 10,488   | 5,674    | 1,453    | 3,521    | 7,229    | 3,916    |
| 19.    | Seer fish                        | 5,032    | 6,010    | 5,763    | 5,178    | 4,100    | 3,784    | 6,424    | 4,700    | 5,228    | 7,179    | 5,431    |
| 20.    | Tunnies                          | 1,044    | 658      | 624      | 1,691    | 1,785    | 2,923    | 3,238    | 1,169    | 3,211    | 4,233    | 3,820    |
| 21.    | <i>Sphyraena</i>                 | 875      | 997      | 858      | 800      | 1,506    | 1,554    | 1,702    | 2,147    | 1,463    | 932      | 948      |
| 22.    | <i>Mugil</i>                     | 817      | 266      | 1,449    | 261      | 1,566    | 285      | 923      | 829      | 229      | 577      | 409      |
| 23.    | <i>Bregmaceros</i>               | —        | —        | —        | —        | —        | —        | —        | —        | —        | —        | —        |
| 24.    | Soles                            | 689      | 518      | 683      | 1,247    | 785      | 909      | 908      | 1,580    | 2,337    | 2,094    | 1,431    |
| 25.    | a. Penaeid prawns                | 3,637    | 4,885    | 4,504    | 8,060    | 11,460   | 8,864    | 8,197    | 13,327   | 10,222   | 9,082    | 13,548   |
|        | b. Non penaeid prawns            | 62       | 148      | 1,285    | 46       | 573      | 169      | 159      | 585      | 897      | 946      | 704      |
|        | c. Lobsters                      | —        | —        | —        | —        | 465      | 525      | 286      | 249      | 340      | 90       | 238      |
|        | d. Crabs & other crustaceans     | 6,059    | 9,518    | 7,719    | 9,752    | 13,896   | 16,413   | 11,018   | 9,290    | 5,883    | 6,174    | 9,485    |
| 26.    | Cephalopods                      | 389      | 248      | 426      | 955      | 2,953    | 1,451    | 1,375    | 1,042    | 1,903    | 1,472    | 1,687    |
| 27.    | Miscellaneous                    | 7,255    | 7,297    | 9,924    | 7,754    | 16,128   | 11,808   | 19,204   | 19,107   | 17,181   | 15,230   | 12,117   |
| TOTAL  |                                  | 1,60,619 | 1,55,153 | 1,82,419 | 1,75,713 | 2,21,215 | 2,26,078 | 2,06,046 | 2,12,899 | 2,35,008 | 2,17,394 | 2,21,296 |

**Table 10.** Composition of marine fish landings in Pondicherry during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971   | 1972  | 1973  | 1974  | 1975  | 1976   | 1977  | 1978  | 1979   | 1980  | 1981   |
|--------|----------------------------------|--------|-------|-------|-------|-------|--------|-------|-------|--------|-------|--------|
| 1.     | Elasmobranchs                    | 848    | 492   | 322   | 186   | 129   | 165    | 352   | 199   | 222    | 435   | 387    |
| 2.     | Eels                             | 103    | 1     | 2     | 3     | 4     | 6      | 5     | —     | 88     | 8     | 13     |
| 3.     | Catfishes                        | 360    | 72    | 122   | 65    | 55    | 66     | 137   | 168   | 51     | 78    | 102    |
| 4.     | <i>Chirocentrus</i>              | 277    | 153   | 291   | 58    | 50    | 63     | 63    | 111   | 167    | 98    | 85     |
| 5.     | a. Oil sardine                   | —      | —     | —     | —     | —     | —      | —     | —     | —      | —     | —      |
|        | b. Lesser sardines               | 1,807  | 724   | 500   | 1,203 | 1,046 | 1,839  | 1,156 | 1,184 | 1,998  | 2,736 | 1,342  |
|        | c. <i>Hilsa ilisha</i>           | 5      | —     | —     | —     | 31    | —      | —     | —     | —      | 25    | —      |
|        | d. Other <i>Hilsa</i>            | 159    | 93    | 157   | 173   | 277   | 121    | 43    | 108   | 12     | 53    | 129    |
|        | e. <i>Anchoviella</i>            | 697    | 439   | 695   | 692   | 412   | 178    | 548   | 521   | 346    | 287   | 507    |
|        | f. <i>Thrissocles</i>            | 338    | 442   | 619   | 519   | 337   | 565    | 405   | 258   | 429    | 387   | 520    |
|        | g. Other clupeoids               | 106    | 141   | 66    | 71    | 50    | 1      | —     | 281   | 345    | 273   | 400    |
| 6.     | a. <i>Harpodon nehereus</i>      | —      | —     | —     | —     | —     | —      | —     | —     | —      | —     | —      |
|        | b. <i>Saurida &amp; Saurus</i>   | 276    | 122   | 103   | 26    | 44    | 105    | 103   | 132   | 262    | 160   | 246    |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 26     | 3     | —     | 21    | 55    | 2      | 4     | —     | 6      | 26    | 57     |
| 8.     | Flying fish                      | 492    | 42    | 18    | 110   | 142   | 165    | 3     | 480   | 854    | 3     | 614    |
| 9.     | Perches                          | 510    | 277   | 405   | 132   | 389   | 769    | 391   | 487   | 1,004  | 666   | 932    |
| 10.    | Red mullets                      | 132    | 66    | 121   | 76    | 100   | 77     | 32    | 109   | 203    | 150   | 155    |
| 11.    | Polynemids                       | 16     | 15    | 20    | 25    | 14    | 26     | 5     | 27    | 14     | 6     | 1      |
| 12.    | Sciaenids                        | 391    | 546   | 626   | 250   | 212   | 434    | 258   | 374   | 306    | 320   | 330    |
| 13.    | Ribbon fish                      | 96     | 402   | 434   | 236   | 314   | 428    | 143   | 139   | 129    | 179   | 217    |
| 14.    | a. <i>Caranx</i>                 | 1,004  | 311   | 227   | 472   | 610   | 501    | 490   | 218   | 537    | 479   | 162    |
|        | b. <i>Chorinemus</i>             | 22     | —     | —     | 2     | —     | 2      | 5     | 33    | 27     | 2     | 32     |
|        | c. <i>Trachynotus</i>            | —      | —     | —     | —     | —     | —      | —     | —     | —      | 2     | —      |
|        | d. Other carangids               | —      | —     | —     | —     | —     | —      | —     | —     | —      | —     | 1,507  |
|        | e. <i>Coryphaena</i>             | —      | —     | 3     | 5     | —     | 7      | 2     | 3     | 2      | —     | —      |
|        | f. <i>Elacate</i>                | 7      | —     | —     | —     | —     | —      | 1     | —     | —      | —     | —      |
| 15.    | a. <i>Leiognathus</i>            | 593    | 412   | 546   | 249   | 511   | 482    | 318   | 372   | 746    | 681   | 975    |
|        | b. <i>Gazza</i>                  | —      | —     | —     | —     | —     | —      | 7     | —     | —      | —     | —      |
| 16.    | <i>Lactarius</i>                 | 53     | 17    | 2     | 12    | 30    | 121    | 175   | —     | 11     | 29    | 44     |
| 17.    | Pomfrets                         | 48     | 67    | 82    | 24    | 13    | 44     | 53    | 50    | 35     | 188   | 123    |
| 18.    | Mackerel                         | 650    | 3,317 | 2,649 | 2,317 | 2,259 | 1,598  | 398   | 179   | 424    | 445   | 316    |
| 19.    | Seer fish                        | 76     | 25    | 46    | 68    | 23    | 28     | 34    | 41    | 105    | 85    | 101    |
| 20.    | Tunnies                          | 16     | 1     | —     | 9     | —     | 1      | —     | 3     | 1      | —     | 55     |
| 21.    | <i>Sphyraena</i>                 | 97     | 3     | 1     | 28    | 27    | 15     | 9     | 25    | 22     | 55    | 50     |
| 22.    | <i>Mugil</i>                     | 7      | 15    | 19    | 1     | 31    | 4      | 14    | 26    | 27     | 49    | 5      |
| 23.    | <i>Bregmaceros</i>               | —      | —     | —     | —     | —     | —      | —     | —     | —      | —     | —      |
| 24.    | Soles                            | 119    | 65    | 214   | 48    | 125   | 254    | 78    | 109   | 162    | 151   | 194    |
| 25.    | a. Penaeid prawns                | 289    | 177   | 33    | 27    | 62    | 93     | 103   | 245   | 532    | 485   | 336    |
|        | b. Non penaeid prawns            | 1      | 5     | 8     | 2     | 2     | —      | 2     | 71    | 72     | 42    | 53     |
|        | c. Lobsters                      | —      | —     | —     | —     | 25    | 33     | 20    | 2     | 5      | 4     | 5      |
|        | d. Crabs & other crustaceans     | 178    | 408   | 194   | 201   | 260   | 516    | 296   | 251   | 242    | 172   | 236    |
| 26.    | Cephalopods                      | 52     | 22    | 20    | 28    | 58    | 211    | 62    | 36    | 50     | 40    | 44     |
| 27.    | Miscellaneous                    | 603    | 105   | 137   | 359   | 453   | 1,203  | 747   | 586   | 632    | 591   | 480    |
| TOTAL  |                                  | 10,454 | 8,980 | 8,682 | 7,698 | 8,150 | 10,123 | 6,462 | 6,828 | 10,068 | 9,390 | 10,755 |

Table 11. Composition of marine fish landings in Kerala during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971     | 1972     | 1973     | 1974     | 1975     | 1976     | 1977     | 1978     | 1979     | 1980     | 1981     |
|--------|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1.     | Elasmobranchs                    | 4,889    | 6,986    | 8,852    | 10,338   | 10,292   | 7,308    | 5,796    | 9,302    | 6,954    | 6,803    | 4,871    |
| 2.     | Eels                             | 31       | 5        | 3        | 49       | 12       | 10       | 6        | 38       | 10       | 6        | 3        |
| 3.     | Catfishes                        | 15,189   | 12,636   | 17,438   | 33,526   | 32,603   | 12,743   | 7,947    | 9,125    | 11,328   | 13,936   | 9,562    |
| 4.     | <i>Chirocentrus</i>              | 464      | 397      | 544      | 860      | 605      | 807      | 547      | 1,298    | 1,125    | 1,002    | 973      |
| 5.     | a. Oil sardine                   | 1,94,977 | 1,04,426 | 1,22,783 | 1,02,135 | 97,183   | 1,23,937 | 1,17,356 | 1,19,937 | 1,16,834 | 69,667   | 1,46,986 |
|        | b. Lesser sardines               | 11,403   | 6,790    | 62,421   | 31,335   | 33,652   | 34,305   | 20,754   | 11,713   | 15,914   | 11,017   | 7,629    |
|        | c. <i>Hilsa ilisha</i>           | 9        | 19       | —        | —        | 10       | 12       | 36       | 182      | 6        | 14       | 8        |
|        | d. Other <i>Hilsa</i>            | 6        | 3        | 39       | 33       | —        | —        | 14       | 69       | 36       | 21       | 15       |
|        | e. <i>Anchoviella</i>            | 10,842   | 10,672   | 8,940    | 19,463   | 11,432   | 9,987    | 10,105   | 21,203   | 6,552    | 7,772    | 4,293    |
|        | f. <i>Thrissocles</i>            | 2,349    | 2,001    | 1,663    | 1,321    | 1,638    | 2,732    | 1,648    | 1,898    | 1,789    | 2,241    | 634      |
|        | g. Other clupeoids               | 1,668    | 1,346    | 1,158    | 1,323    | 998      | 1,174    | 512      | 973      | 674      | 574      | 944      |
| 6.     | a. <i>Harpodon nehereus</i>      | 1        | 43       | 45       | 18       | —        | —        | —        | 21       | 1        | —        | —        |
|        | b. <i>Saurida &amp; Saurus</i>   | 1,395    | 1,426    | 1,136    | 8,839    | 11,294   | 99       | 5,169    | 6,246    | 5,326    | 7,080    | 5,691    |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 97       | 88       | 185      | 331      | 278      | 141      | 281      | 281      | 257      | 361      | 565      |
| 8.     | Flying fish                      | 2        | —        | 1        | 2        | —        | 1        | —        | —        | —        | —        | 16       |
| 9.     | Perches                          | 3,663    | 3,939    | 8,663    | 20,970   | 14,741   | 3,069    | 14,121   | 24,989   | 20,239   | 17,814   | 8,549    |
| 10.    | Red mullets                      | 1,573    | 2,960    | 1,537    | 3,881    | 23       | 2,577    | 240      | 171      | 127      | 1        | 33       |
| 11.    | Polynemids                       | 569      | 24       | 570      | 3        | 105      | 122      | 69       | 35       | 29       | 8        | 47       |
| 12.    | Sciaenids                        | 4,145    | 6,137    | 11,723   | 9,220    | 16,811   | 6,955    | 11,965   | 13,045   | 5,237    | 6,164    | 3,145    |
| 13.    | Ribbon fish                      | 17,380   | 10,459   | 23,897   | 30,192   | 15,175   | 7,687    | 7,440    | 24,207   | 25,718   | 12,937   | 7,066    |
| 14.    | a. <i>Caranx</i>                 | 4,952    | 14,848   | 14,283   | 5,260    | 7,190    | 10,478   | 15,673   | 7,197    | 12,339   | 4,399    | 1,743    |
|        | b. <i>Chorinemus</i>             | 49       | 817      | 48       | 72       | 135      | 265      | 540      | 148      | 128      | 145      | 318      |
|        | c. <i>Trachinotus</i>            | 6        | 2        | —        | —        | 6        | —        | 7        | 19       | —        | —        | —        |
|        | d. Other carangids               | 3        | 36       | 36       | 73       | 85       | 6        | 78       | 72       | —        | 59       | 2,989    |
|        | e. <i>Coryphaena</i>             | 1        | 92       | 153      | 94       | 61       | 56       | 28       | 19       | 48       | 138      | —        |
|        | f. <i>Elacate</i>                | 299      | 76       | 52       | 35       | 62       | 106      | 158      | 166      | 120      | 19       | —        |
| 15.    | a. <i>Leiognathus</i>            | 8,609    | 5,042    | 18,388   | 17,518   | 5,211    | 2,727    | 7,708    | 3,040    | 3,597    | 4,147    | 2,826    |
|        | b. <i>Gazza</i>                  | 21       | 15       | 4        | 5        | —        | —        | —        | —        | —        | 1        | —        |
| 16.    | <i>Lactarius</i>                 | 2,991    | 3,034    | 6,663    | 2,904    | 983      | 468      | 823      | 1,533    | 253      | 861      | 879      |
| 17.    | Pomfrets                         | 2,416    | 1,932    | 1,809    | 1,500    | 1,181    | 799      | 3,712    | 1,614    | 1,737    | 907      | 1,373    |
| 18.    | Mackerel                         | 95,164   | 34,516   | 19,780   | 10,335   | 14,930   | 19,978   | 19,968   | 25,917   | 18,585   | 18,474   | 16,200   |
| 19.    | Seer fish                        | 2,800    | 1,386    | 1,690    | 4,909    | 4,065    | 5,936    | 3,250    | 3,354    | 6,275    | 3,763    | 3,330    |
| 21.    | Tunnies                          | 3,043    | 3,626    | 2,699    | 5,927    | 5,845    | 12,880   | 6,705    | 6,548    | 15,391   | 10,611   | 5,509    |
| 21.    | <i>Sphyræna</i>                  | 174      | 1,125    | 2,333    | 3,865    | 396      | 494      | 353      | 721      | 477      | 330      | 812      |
| 22.    | <i>Mugil</i>                     | 549      | 91       | 103      | 955      | 74       | 26       | 38       | 1        | 39       | 151      | 120      |
| 23.    | Bregmaceros                      | —        | —        | —        | —        | —        | —        | —        | —        | —        | —        | —        |
| 24.    | Soles                            | 8,807    | 6,119    | 8,551    | 12,771   | 6,932    | 3,567    | 5,778    | 7,276    | 4,487    | 4,394    | 5,034    |
| 25.    | a. Penaeid prawns                | 31,294   | 35,866   | 84,770   | 59,815   | 77,207   | 34,478   | 40,150   | 45,034   | 29,522   | 52,633   | 22,268   |
|        | b. Non penaeid prawns            | 1,519    | 711      | 981      | 1,014    | 755      | 55       | 174      | 394      | 75       | 1,742    | 160      |
|        | c. Lobsters                      | —        | —        | —        | —        | 31       | 50       | 40       | 38       | 26       | 18       | 50       |
|        | d. Crabs & other crustaceans     | 523      | 158      | 1,781    | 2,886    | 1,797    | 1,316    | 4,621    | 2,176    | 7,643    | 7,286    | 2,998    |
| 26.    | Cephalopods                      | 473      | 350      | 339      | 2,175    | 3,342    | 872      | 4,973    | 6,516    | 2,976    | 4,244    | 2,376    |
| 27.    | Miscellaneous                    | 11,002   | 15,419   | 12,208   | 14,305   | 43,696   | 22,824   | 26,254   | 16,823   | 8,635    | 7,803    | 4,380    |
| TOTAL  |                                  | 4,45,347 | 2,95,618 | 4,48,269 | 4,20,257 | 4,20,836 | 3,31,047 | 3,45,037 | 3,73,339 | 3,30,509 | 2,79,543 | 2,74,395 |

Table 12. Composition of marine fish landings in Karnataka during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971     | 1972   | 1973   | 1974   | 1975   | 1976   | 1977   | 1978     | 1979     | 1980     | 1981     |
|--------|----------------------------------|----------|--------|--------|--------|--------|--------|--------|----------|----------|----------|----------|
| 1.     | Elasmobranchs                    | 2,753    | 4,587  | 1,690  | 2,007  | 1,726  | 1,489  | 3,238  | 2,051    | 2,531    | 2,910    | 4,065    |
| 2.     | Eels                             | —        | 8      | 8      | 8      | 81     | —      | 3      | 8        | 1        | 131      | —        |
| 3.     | Catfishes                        | 1,331    | 3,184  | 2,372  | 2,011  | 3,222  | 4,279  | 5,162  | 2,831    | 9,920    | 5,354    | 7,503    |
| 4.     | <i>Chirocentrus</i>              | 176      | 343    | 219    | 684    | 412    | 184    | 717    | 247      | 258      | 171      | 118      |
| 5.     | Oil sardine                      | 11,836   | 15,610 | 15,495 | 20,784 | 52,701 | 41,451 | 31,145 | 46,707   | 33,080   | 42,727   | 65,614   |
| a.     | Lesser sardines                  | 491      | 1,563  | 1,164  | 228    | 775    | 641    | 180    | 2,572    | 4,753    | 4,135    | 5,328    |
| b.     | <i>Hilsa ilisha</i>              | 18       | 785    | 50     | 459    | 1      | —      | 44     | 9        | 10       | 8        | 1        |
| c.     | Other <i>Hilsa</i>               | 14       | 5      | 33     | 1      | 10     | 30     | 113    | 30       | 52       | 25       | 331      |
| d.     | <i>Anchoviella</i>               | 97       | 124    | 235    | 51     | 10     | 54     | 174    | 443      | 1,721    | 5,621    | 5,959    |
| e.     | <i>Thriposocles</i>              | 180      | 575    | 263    | 1,079  | 344    | 900    | 831    | 919      | 441      | 850      | 296      |
| f.     | Other clupeoids                  | 365      | 698    | 690    | 957    | 568    | 457    | 1,677  | 872      | 2,278    | 1,088    | 951      |
| 6.     | <i>Harpodon nehereus</i>         | 10       | 1      | 17     | 5      | 2      | 7      | 4      | 4        | 5        | 15       | —        |
| a.     | <i>Saurida &amp; Saurus</i>      | 351      | 18     | —      | 3      | 75     | 187    | 385    | 92       | 155      | 508      | 333      |
| b.     | <i>Hemirhamphus &amp; Belone</i> | 38       | 27     | 18     | 5      | 36     | 87     | 57     | 41       | 49       | 180      | 148      |
| 7.     | Flying fish                      | —        | 1      | —      | —      | —      | —      | —      | —        | —        | 55       | —        |
| 8.     | Perches                          | 132      | 177    | 122    | 203    | 727    | 454    | 1,489  | 174      | 181      | 1,069    | 399      |
| 9.     | Red mullets                      | 9        | 65     | 3      | —      | 3      | 145    | 19     | 31       | 30       | 38       | —        |
| 10.    | Polynemids                       | 1        | 69     | 8      | 16     | 3      | —      | 3      | 3        | 2        | —        | —        |
| 11.    | Sciaenids                        | 1,313    | 2,114  | 1,013  | 3,208  | 1,853  | 3,216  | 2,762  | 1,728    | 2,348    | 3,500    | 2,295    |
| 12.    | Ribbon fish                      | 330      | 748    | 138    | 303    | 219    | 583    | 237    | 404      | 1,193    | 1,499    | 235      |
| 13.    | <i>Caranx</i>                    | 440      | 516    | 1,226  | 771    | 746    | 656    | 760    | 202      | 1,103    | 4,507    | 1,012    |
| a.     | <i>Chorinemus</i>                | 5        | 286    | 12     | 72     | 55     | 80     | 506    | 13       | 59       | 67       | 148      |
| b.     | <i>Trachinotus</i>               | —        | —      | —      | 115    | 49     | —      | —      | 3        | 13       | —        | —        |
| c.     | Other carangids                  | —        | —      | —      | 11     | 92     | —      | 41     | 43       | 1        | 232      | 2,429    |
| d.     | <i>Coryphaena</i>                | —        | —      | —      | —      | 23     | —      | —      | —        | —        | —        | —        |
| e.     | <i>Elacate</i>                   | 8        | 3      | 220    | 54     | 31     | 32     | 1      | 55       | 34       | 3        | —        |
| f.     | <i>Leiognathus</i>               | 1,321    | 795    | 2,659  | 2,058  | 1,240  | 4,086  | 1,631  | 4,241    | 1,565    | 4,671    | 1,638    |
| 15.    | <i>Gazza</i>                     | —        | —      | —      | —      | —      | —      | —      | —        | —        | 42       | —        |
| a.     | <i>Lactarius</i>                 | 487      | 899    | 1,740  | 1,546  | 495    | 216    | 101    | 198      | 433      | 998      | 515      |
| b.     | Pomfrets                         | 866      | 618    | 1,153  | 303    | 213    | 438    | 249    | 1,957    | 250      | 696      | 419      |
| 16.    | Mackerel                         | 64,047   | 32,249 | 35,468 | 9,696  | 12,469 | 22,455 | 26,214 | 50,704   | 40,084   | 19,634   | 19,766   |
| 17.    | Seer fish                        | 2,506    | 2,498  | 1,313  | 1,532  | 776    | 1,341  | 1,831  | 1,463    | 1,645    | 1,941    | 2,267    |
| 18.    | Tunnies                          | 515      | 134    | 124    | 394    | 212    | 576    | 622    | 614      | 1,717    | 952      | 2,517    |
| 19.    | <i>Sphyræna</i>                  | 21       | 32     | 130    | 26     | 14     | 9      | 3      | 276      | 41       | 84       | 75       |
| 20.    | <i>Mugil</i>                     | —        | 12     | 33     | —      | 8      | 6      | —      | 1        | —        | 39       | 1        |
| 21.    | <i>Bregmaceros</i>               | —        | —      | —      | —      | —      | —      | —      | —        | —        | —        | —        |
| 22.    | Soles                            | 656      | 1,594  | 626    | 2,377  | 373    | 637    | 985    | 1,820    | 874      | 782      | 545      |
| 23.    | Penaeid prawns                   | 4,420    | 8,058  | 8,235  | 12,695 | 3,074  | 2,594  | 3,335  | 8,422    | 4,654    | 3,098    | 4,122    |
| a.     | Non penaeid prawns               | —        | 17     | 1      | 1      | —      | —      | —      | 18       | 6        | 128      | 4        |
| b.     | Lobsters                         | —        | —      | —      | —      | 12     | 8      | 4      | 39       | 15       | 110      | —        |
| c.     | Crabs & other crustaceans        | 1,763    | 346    | 934    | 1,742  | 2,540  | 156    | 207    | 741      | 2,740    | 2,765    | 9,368    |
| 24.    | Cephalopods                      | 7        | 25     | 19     | 20     | 175    | 3,067  | 965    | 1,346    | 68       | 122      | 266      |
| 25.    | Miscellaneous                    | 7,217    | 13,892 | 14,053 | 10,838 | 2,129  | 4,762  | 11,457 | 21,538   | 12,074   | 4,567    | 14,681   |
| TOTAL  |                                  | 1,03,724 | 92,676 | 91,484 | 76,263 | 87,494 | 95,283 | 97,152 | 1,52,860 | 1,26,384 | 1,15,322 | 1,53,349 |

perches, ribbon fish, tunnies, catfish, white bait, lesser sardines and croakers, the reduction being 9,300, 5,900, 5,100, 4,400, 3,500, 3,400 and 3,000 t respectively. Table 11 shows the species composition of marine fish landings in Kerala for the period 1971 to 1981.

### Karnataka

In Karnataka, the total marine fish landings showed a substantial increase of about 38,000 t (33%) during 1981 as compared to 1980. The catch of oil sardine increased significantly by about 23,000 t contributing substantially to the increase in the total catch of the state. The landings of catfishes, tunnies, lesser sardines and penaeid prawns also increased by about 2,100, 1,600, 1,200 and 1,000 t respectively. The catch of silverbellies, ribbon fish, croakers and perches, however, showed a decline of about 3,000, 1,300, 1,200 and 700 t respectively. The specieswise composition

of total marine fish production in Karnataka during the years 1971 to 1981 is given in Table 12.

### Goa

An increase of about 10,000 t (41%) in the total landings was noticed during 1981 as compared to 1980. While the landings of oil sardine, mackerel, catfishes and perches increased by about 5,200, 1,500, 1,100 and 900 t respectively, ribbon fish catch showed a decline of about 400 t. Table 13 shows the details of specieswise composition of total marine fish landings in Goa during the years 1971 to 1981.

### Maharashtra

The total marine fish catch in Maharashtra during 1981 was estimated at 2.73 lakh t. The important fisheries of the state viz. Bombay duck, non-penaeid prawns, penaeid prawns, croakers, pomfrets and

Table 13. Composition of marine fish landings in Goa during 1971 to 1981 (in tonnes)

| Sl. No. | Name of fish                        | 1971   | 1972   | 1973   | 1974   | 1975   | 1976   | 1977   | 1978   | 1979   | 1980   | 1981   |
|---------|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.      | Elasmobranchs                       | 229    | 299    | 199    | 387    | 572    | 1,038  | 625    | 863    | 1,280  | 894    | 1,050  |
| 2.      | Eels                                | —      | —      | —      | —      | 64     | 1      | —      | 55     | 35     | 6      | 19     |
| 3.      | Catfishes                           | 84     | 281    | 230    | 348    | 1,367  | 834    | 918    | 1,356  | 846    | 1,151  | 2,211  |
| 4.      | <i>Chirocentrus</i>                 | 13     | 21     | 34     | 78     | 32     | 54     | 32     | 78     | 122    | 124    | 181    |
| 5.      | a. Oil sardine                      | 1,994  | 3,793  | 3,426  | 2,106  | 7,526  | 1,385  | 807    | 1,398  | 3,030  | 2,367  | 7,609  |
|         | b. Lesser sardines                  | 72     | 2,165  | 1,272  | 1,172  | 3,914  | 11,100 | 4,066  | 5,151  | 2,471  | 1,798  | 2,296  |
|         | c. <i>Hilsa ilisha</i>              | —      | —      | —      | —      | —      | —      | —      | 3      | 2      | 8      | 2      |
|         | d. Other <i>Hilsa</i>               | —      | —      | —      | —      | —      | —      | 1      | 2      | 14     | 14     | 26     |
|         | e. <i>Anchoviella</i>               | 44     | 123    | 146    | —      | 31     | —      | 9      | 5      | —      | 249    | 108    |
|         | f. <i>Thripos</i>                   | —      | —      | —      | 81     | 123    | 290    | 293    | 1,308  | 911    | 779    | 593    |
|         | g. Other clupeoids                  | 260    | 8      | 120    | 276    | 419    | 667    | 520    | 645    | 378    | 302    | 341    |
| 6.      | a. <i>Harporodon nehereus</i>       | 2      | —      | —      | —      | 10     | 46     | 20     | 27     | 9      | 12     | 1      |
|         | b. <i>Saurida</i> & <i>Saurus</i>   | —      | —      | —      | 1      | 151    | 25     | 239    | 279    | 104    | 199    | 707    |
| 7.      | <i>Hemirhamphus</i> & <i>Belone</i> | —      | —      | —      | —      | —      | 8      | 13     | 56     | 13     | 6      | 2      |
| 8.      | Flying fish                         | —      | —      | —      | —      | —      | —      | —      | 2      | 1      | 2      | —      |
| 9.      | Perches                             | —      | 26     | 4      | 9      | 45     | 310    | 505    | 781    | 203    | 269    | 1,183  |
| 10.     | Red mullets                         | —      | —      | 6      | 34     | 77     | —      | —      | —      | —      | 15     | 60     |
| 11.     | Polynemids                          | 15     | 13     | 13     | 44     | 63     | —      | 1      | 1      | —      | 10     | 14     |
| 12.     | Sciaenids                           | 106    | 280    | 171    | 883    | 3,048  | 2,640  | 2,779  | 3,256  | 1,492  | 1,530  | 1,610  |
| 13.     | Ribbon fish                         | 23     | 12     | 48     | 111    | 355    | 1,123  | 449    | 504    | 548    | 1,089  | 684    |
| 14.     | a. <i>Caranx</i>                    | —      | 4      | 2      | 952    | 1,078  | 794    | 1,149  | 1,803  | 1,343  | 884    | 113    |
|         | b. <i>Chorinemus</i>                | —      | —      | —      | 4      | —      | 100    | 44     | 56     | 140    | 71     | 44     |
|         | c. <i>Trachinotus</i>               | —      | —      | —      | —      | —      | 3      | —      | —      | —      | —      | —      |
|         | d. Other carangids                  | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      |
|         | e. <i>Coryphaena</i>                | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | 565    |
|         | f. <i>Elacate</i>                   | —      | —      | —      | —      | —      | —      | 23     | 52     | 190    | 190    | —      |
| 15.     | a. <i>Lutjanus</i>                  | 156    | 287    | 152    | 1,420  | 604    | 896    | 458    | 704    | 881    | 1,727  | 2,075  |
|         | b. <i>Gazza</i>                     | —      | —      | —      | —      | —      | 3      | —      | —      | —      | —      | —      |
| 16.     | <i>Lactarius</i>                    | 5      | 113    | 170    | 373    | 189    | 338    | 375    | 443    | 291    | 614    | 820    |
| 17.     | Pomfrets                            | 24     | 31     | 24     | 96     | 102    | 100    | 296    | 367    | 138    | 257    | 123    |
| 18.     | Mackerel                            | 35,258 | 19,999 | 7,616  | 7,905  | 6,779  | 6,448  | 7,661  | 3,371  | 4,391  | 2,446  | 3,939  |
| 19.     | Seer fish                           | 108    | 67     | 66     | 273    | 222    | 501    | 213    | 691    | 1,101  | 735    | 643    |
| 20.     | Tunnies                             | —      | —      | —      | —      | 2      | 23     | 107    | 300    | 742    | 356    | 188    |
| 21.     | <i>Sphyraena</i>                    | —      | —      | —      | —      | —      | —      | —      | 7      | 7      | 171    | 38     |
| 22.     | <i>Mugil</i>                        | —      | 18     | —      | 5      | 124    | 4      | 46     | 32     | 14     | 11     | 206    |
| 23.     | <i>Bregmaceros</i>                  | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      |
| 24.     | Soles                               | 64     | 221    | 95     | 196    | 16     | 137    | 335    | 417    | 893    | 1,311  | 727    |
| 25.     | a. Penaeid prawns                   | 279    | 561    | 785    | 1,448  | 1,762  | 4,643  | 1,436  | 1,647  | 1,594  | 1,853  | 2,237  |
|         | b. Non penaeid prawns               | —      | —      | —      | —      | —      | —      | 24     | 26     | —      | —      | —      |
|         | c. Lobsters                         | —      | —      | —      | —      | 6      | 3      | 7      | 13     | 6      | 18     | 9      |
|         | d. Crabs & other crustaceans        | 11     | 7      | 20     | 86     | 227    | 971    | 637    | 531    | 1,379  | 1,933  | 2,696  |
| 26.     | Cephalopods                         | —      | 5      | —      | 14     | 96     | 142    | 164    | 124    | 173    | 210    | 94     |
| 27.     | Miscellaneous                       | 1,233  | 1,770  | 1,141  | 1,232  | 166    | 341    | 479    | 757    | 646    | 879    | 1,284  |
| TOTAL   |                                     | 39,980 | 30,104 | 15,740 | 19,534 | 29,170 | 34,968 | 24,731 | 27,111 | 25,388 | 24,490 | 34,498 |

**Table 14.** Composition of marine fish landings in Maharashtra during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971     | 1972     | 1973     | 1974     | 1975     | 1976     | 1977     | 1978     | 1979     | 1980     | 1981     |
|--------|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1.     | Elasmobranchs                    | 4,470    | 5,937    | 7,624    | 6,538    | 8,167    | 7,089    | 7,746    | 10,072   | 12,516   | 7,752    | 9,675    |
| 2.     | Eels                             | 2,864    | 3,190    | 2,026    | 674      | 1,101    | 4,168    | 3,849    | 5,384    | 4,033    | 3,154    | 2,290    |
| 3.     | Catfishes                        | 18,052   | 12,821   | 9,226    | 7,240    | 8,236    | 9,522    | 8,318    | 11,081   | 10,433   | 8,653    | 11,045   |
| 4.     | <i>Chirocentrus</i>              | 1,207    | 1,268    | 2,152    | 1,135    | 2,936    | 2,409    | 2,634    | 3,059    | 1,721    | 2,039    | 2,918    |
| 5.     | a. Oil sardine                   | 407      | 3,593    | 2,483    | 1,083    | 1,699    | 2,377    | 108      | —        | 16       | 663      | 622      |
|        | b. Lesser sardines               | 1,864    | 2,877    | 3,077    | 1,238    | 3,103    | 1,963    | 1,024    | 868      | 927      | 1,363    | 420      |
|        | c. <i>Hilsa ilisha</i>           | 22       | 13       | 89       | 4        | 16       | 154      | 352      | 1,558    | 1,071    | 1,017    | 530      |
|        | d. Other <i>Hilsa</i>            | 1,121    | 1,399    | 849      | 800      | 1,152    | 661      | 978      | 466      | 429      | 607      | 2,201    |
|        | e. <i>Anchoviella</i>            | 990      | 209      | 573      | 272      | 533      | 209      | 269      | 340      | 382      | 78       | 55       |
|        | f. <i>Thrissoles</i>             | 1,574    | 1,236    | 3,008    | 869      | 927      | 1,276    | 1,679    | 1,821    | 2,832    | 1,271    | 944      |
|        | g. Other clupeoids               | 8,781    | 9,484    | 15,018   | 13,892   | 21,172   | 16,944   | 22,782   | 13,608   | 15,675   | 16,897   | 20,314   |
| 6.     | a. <i>Harpodon nehereus</i>      | 33,993   | 21,246   | 34,179   | 29,989   | 51,645   | 49,470   | 50,803   | 68,781   | 59,667   | 57,393   | 82,136   |
|        | b. <i>Saurida &amp; Saurus</i>   | 148      | 577      | 987      | 637      | 218      | 1,089    | 1,135    | 1,815    | 2,374    | 1,057    | 1,308    |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 127      | 108      | 117      | 33       | 52       | 30       | 32       | 51       | 126      | 42       | 46       |
| 8.     | Flying fish                      | 49       | 13       | 1        | 2        | 2        | —        | —        | 5        | 1        | —        | —        |
| 9.     | Perches                          | 853      | 1,379    | 3,195    | 2,111    | 2,484    | 1,460    | 2,973    | 6,951    | 3,225    | 3,712    | 2,617    |
| 10.    | Red mullets                      | 514      | 1,133    | 987      | 701      | 103      | 497      | 171      | 344      | 859      | 461      | 982      |
| 11.    | Polynemids                       | 987      | 2,174    | 2,333    | 1,797    | 1,628    | 4,125    | 862      | 1,909    | 1,600    | 1,976    | 711      |
| 12.    | Sciaenids                        | 13,339   | 11,299   | 14,319   | 17,453   | 20,576   | 19,781   | 17,086   | 17,202   | 21,366   | 13,956   | 17,475   |
| 13.    | Ribbon fish                      | 6,562    | 8,544    | 13,363   | 9,585    | 9,435    | 10,052   | 6,338    | 10,400   | 10,983   | 11,550   | 8,048    |
| 14.    | a. <i>Caranx</i>                 | 2,280    | 1,371    | 804      | 2,535    | 2,240    | 1,179    | 1,167    | 1,899    | 2,314    | 1,315    | 135      |
|        | b. <i>Chorinemus</i>             | 87       | 171      | 445      | 179      | 145      | 121      | 230      | 300      | 416      | 357      | 360      |
|        | c. <i>Trachynotus</i>            | —        | —        | 189      | 5        | 3        | 3        | —        | —        | —        | —        | —        |
|        | d. Other carangids               | 134      | 29       | 84       | 4        | —        | 654      | —        | 50       | 385      | 369      | 1,014    |
|        | e. <i>Coryphaena</i>             | —        | —        | 4        | 9        | 11       | 2        | —        | —        | 51       | 20       | —        |
|        | f. <i>Elacate</i>                | —        | 6        | 126      | 21       | 15       | —        | —        | —        | —        | —        | —        |
| 15.    | a. <i>Leiognathus</i>            | 231      | 268      | 955      | 473      | 200      | —        | 358      | 323      | 724      | 406      | 129      |
|        | b. <i>Gazza</i>                  | 126      | —        | —        | 293      | 293      | —        | —        | —        | —        | —        | —        |
| 16.    | <i>Lactarius</i>                 | 288      | 322      | 760      | 431      | 431      | 643      | 247      | 836      | 430      | 450      | 500      |
| 17.    | Pomfrets                         | 5,787    | 6,858    | 8,209    | 6,683    | 8,351    | 17,979   | 17,295   | 13,050   | 14,941   | 10,081   | 17,144   |
| 18.    | Mackerel                         | 4,650    | 5,507    | 2,368    | 2,587    | 1,860    | 1,944    | 875      | 787      | 1,455    | 288      | 289      |
| 19.    | Seer fish                        | 1,509    | 2,089    | 1,769    | 1,434    | 1,850    | 2,116    | 3,220    | 2,915    | 4,027    | 3,219    | 2,814    |
| 20.    | Tunnies                          | 292      | 294      | 743      | 286      | 274      | 463      | 312      | 1,939    | 1,772    | 1,674    | 1,248    |
| 21.    | <i>Sphyraena</i>                 | —        | 54       | 21       | 21       | 17       | 50       | —        | 388      | 82       | 33       | 16       |
| 22.    | <i>Mugil</i>                     | 72       | 55       | 65       | 22       | 30       | 191      | 48       | 102      | 38       | 24       | 35       |
| 23.    | <i>Bregmaceros</i>               | 4,345    | 5,488    | 4,213    | 1,806    | 1,043    | 380      | 30       | 21       | 276      | 159      | 13       |
| 24.    | Soles                            | 904      | 553      | 2,737    | 502      | 487      | 1,553    | 1,245    | 1,676    | 2,304    | 1,797    | 1,784    |
| 25.    | a. Penaeid prawns                | 18,974   | 20,173   | 16,894   | 14,712   | 24,653   | 40,772   | 26,675   | 41,091   | 45,638   | 23,433   | 21,717   |
|        | b. Non penaeid prawns            | 74,637   | 83,952   | 63,455   | 50,025   | 69,012   | 63,702   | 66,978   | 44,255   | 56,208   | 47,309   | 52,854   |
|        | c. Lobsters                      | —        | —        | —        | —        | 245      | 419      | 434      | 607      | 499      | 225      | 388      |
|        | d. Crabs & other crustaceans     | 979      | 487      | 687      | 973      | 550      | 51       | 93       | 148      | 519      | 297      | 496      |
| 26.    | Cephalopods                      | 368      | 282      | 501      | 298      | 482      | 2,488    | 596      | 4,557    | 3,959    | 1,191    | 1,755    |
| 27.    | Miscellaneous                    | 1,718    | 3,543    | 6,061    | 5,609    | 9,242    | 25,615   | 15,510   | 13,585   | 7,052    | 5,475    | 5,559    |
| TOTAL  |                                  | 2,15,305 | 2,20,002 | 2,26,696 | 1,84,961 | 2,56,619 | 2,93,601 | 2,64,452 | 2,84,244 | 2,93,326 | 2,31,763 | 2,72,587 |

Table 15. Composition of marine fish landings in Gujarat during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971   | 1972   | 1973     | 1974     | 1975     | 1976     | 1977     | 1978     | 1979     | 1980     | 1981     |
|--------|----------------------------------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1.     | Elasmobranchs                    | 6,249  | 6,572  | 3,995    | 10,227   | 11,930   | 7,896    | 17,565   | 11,511   | 4,926    | 14,558   | 13,433   |
| 2.     | Eels                             | 796    | 1,124  | 1,396    | 2,446    | 2,497    | 3,283    | 8,463    | 1,886    | 2,622    | 8,403    | 2,179    |
| 3.     | Catfishes                        | 3,570  | 3,905  | 2,071    | 5,548    | 2,514    | 2,140    | 8,958    | 4,159    | 5,320    | 5,235    | 10,370   |
| 4.     | <i>Chirocentrus</i>              | 2,363  | 2,435  | 1,295    | 1,722    | 2,325    | 2,155    | 3,327    | 1,869    | 1,970    | 3,792    | 2,986    |
| 5.     | a. Oil sardine                   | —      | —      | —        | —        | —        | —        | —        | —        | —        | —        | —        |
|        | b. Lesser sardines               | 43     | 368    | —        | —        | —        | 8        | —        | —        | —        | —        | —        |
|        | c. <i>Hilsa ilisha</i>           | 624    | 165    | 48       | 258      | 3,394    | 1,098    | 329      | 49       | 231      | 56       | 17       |
|        | d. Other <i>Hilsa</i>            | 5,405  | 5,536  | 6,500    | 3,292    | 3,846    | 3,367    | 5,547    | 5,703    | 3,837    | 3,965    | 10,283   |
|        | e. <i>Anchoviella</i>            | —      | 9      | —        | —        | 130      | —        | —        | —        | —        | —        | —        |
|        | f. <i>Thrissoles</i>             | 217    | 113    | 174      | 239      | 117      | 269      | 105      | 608      | 686      | 913      | 1,274    |
|        | g. Other clupeoids               | 3,372  | 3,983  | 1,995    | 11,557   | 13,192   | 11,098   | 9,458    | 13,282   | 5,552    | 8,538    | 7,067    |
| 6.     | a. <i>Harpodon nehereus</i>      | 35,680 | 29,011 | 27,664   | 29,675   | 44,554   | 34,998   | 32,289   | 53,870   | 63,984   | 36,671   | 54,114   |
|        | b. <i>Saurida &amp; Saurus</i>   | —      | 1,169  | 563      | 1,546    | 1,267    | 2,797    | 42       | 82       | 6        | 85       | 110      |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 1      | 5      | 2        | 5        | 3        | 101      | 104      | 1        | 185      | 6        | —        |
| 8.     | Flying fish                      | —      | —      | —        | 127      | —        | —        | —        | —        | —        | —        | —        |
| 9.     | Perches                          | 383    | 1,394  | 2,403    | 2,462    | 3,261    | 4,641    | 1,213    | 4,174    | 973      | 2,454    | 4,832    |
| 10.    | Red mullets                      | —      | —      | 1        | 1        | —        | 680      | 779      | 2        | 8        | —        | 294      |
| 11.    | Polynemids                       | 2,391  | 1,626  | 2,969    | 5,331    | 8,832    | 6,230    | 268      | 339      | 736      | 667      | 1,585    |
| 12.    | Sciaenids                        | 3,433  | 3,806  | 40,324   | 24,275   | 45,781   | 28,698   | 39,968   | 33,968   | 28,230   | 31,625   | 35,242   |
| 13.    | Ribbon fish                      | 1,145  | 1,447  | 938      | 1,849    | 1,097    | 12,341   | 14,180   | 6,944    | 4,491    | 10,858   | 8,327    |
| 14.    | a. <i>Caranx</i>                 | 771    | 229    | 242      | 1,068    | 1,012    | 1,642    | 1,002    | 270      | 510      | 461      | 757      |
|        | b. <i>Chorinemus</i>             | —      | 7      | 251      | 95       | —        | 14       | 401      | 320      | 466      | 1,022    | 2,764    |
|        | c. <i>Trachynotus</i>            | —      | —      | —        | —        | —        | —        | —        | —        | —        | —        | —        |
|        | d. Other carangids               | 128    | 214    | —        | —        | 14       | —        | —        | —        | —        | —        | —        |
|        | e. <i>Coryphaena</i>             | —      | —      | —        | —        | —        | —        | —        | —        | —        | —        | 89       |
|        | f. <i>Elacate</i>                | —      | —      | —        | —        | —        | 14       | —        | —        | —        | —        | —        |
| 15.    | a. <i>Leiognathus</i>            | 82     | —      | —        | 2        | 1        | 908      | —        | —        | —        | —        | —        |
|        | b. <i>Gazza</i>                  | —      | —      | —        | —        | —        | —        | —        | —        | —        | —        | —        |
| 16.    | <i>Lactarius</i>                 | —      | 421    | 765      | 987      | 5,379    | 7,765    | 7,349    | 3,360    | 783      | 2,520    | 3,769    |
| 17.    | Pomfrets                         | 6,781  | 4,234  | 4,249    | 8,029    | 5,612    | 2,116    | 9,174    | 15,141   | 9,319    | 12,587   | 19,169   |
| 18.    | Mackerel                         | 1      | —      | —        | —        | —        | —        | —        | —        | 35       | 112      | —        |
| 19.    | Seer fish                        | 2,524  | 2,850  | 4,110    | 686      | 1,879    | 1,634    | 2,022    | 3,734    | 2,682    | 4,180    | 5,536    |
| 20.    | Tunnies                          | 1      | 1      | 268      | 579      | 546      | 734      | 332      | 451      | 442      | 277      | 1,600    |
| 21.    | <i>Sphyræna</i>                  | —      | 36     | 29       | 54       | 26       | 9        | 154      | —        | —        | —        | 1        |
| 22.    | <i>Mugil</i>                     | 1,674  | 847    | 1,116    | 1,291    | 600      | 1,097    | 900      | 1,264    | 751      | 1,034    | 1,118    |
| 23.    | <i>Bregmaceros</i>               | —      | —      | —        | 66       | —        | —        | —        | 163      | 362      | 757      | 451      |
| 24.    | Soles                            | 54     | 392    | 1,525    | 1,456    | 2,991    | 2,969    | 729      | 268      | 411      | 2,459    | 3,885    |
| 25.    | a. Penaeid prawns                | 2,873  | 2,013  | 10,550   | 5,970    | 13,395   | 11,497   | 8,861    | 7,938    | 8,606    | 14,481   | 10,985   |
|        | b. Non penaeid prawns            | 141    | 218    | 70       | 149      | 2,386    | 7,778    | 1,260    | 3,096    | 3,347    | 4,109    | 4,742    |
|        | c. Lobsters                      | —      | —      | —        | 39       | 2,105    | 1,491    | 424      | 339      | 211      | 204      | 786      |
|        | d. Crabs & other crustaceans     | 3      | 393    | 749      | 5        | 10       | 224      | 2,471    | 584      | 783      | 4,967    | 16,549   |
| 26.    | Cephalopods                      | —      | 3      | 1        | 7        | 611      | 2,286    | 1,439    | 1,959    | 5,351    | 3,471    | 2,743    |
| 27.    | Miscellaneous                    | 1,454  | 1,320  | 5,700    | 24,266   | 12,468   | 7,316    | 10,525   | 24,595   | 33,496   | 23,027   | 7,453    |
| TOTAL  |                                  | 82,159 | 75,846 | 1,21,963 | 1,45,309 | 1,93,775 | 1,71,294 | 1,89,638 | 2,01,929 | 1,91,312 | 2,03,494 | 2,34,510 |



catfishes landed about 30, 20, 8, 6, 6, and 4 per cent respectively of the total catch (Table 4).

## Gujarat

In Gujarat, the total marine fish landings increased by about 31,000 t (15%) during 1981 as compared to 1980. Bombay duck, the major fishery of this state, showed an increase in the catch by about 17,400 t. The other species that showed increase in their landings were other crustaceans, pomfrets, catfishes, croakers, perches and carangids, the improvement being 11,600, 6,600, 5,100, 3,600, 2,400 and 2,100 t respectively. The catch of eels, penaeid prawns and ribbon fish showed a decline of about 6,200, 3,500 and 2,500 t respectively. Table 15 shows the specieswise composition of total marine fish landings in Gujarat for the years 1971 to 1981.

## Andamans

A marginal increase of about 60 t (3%) in the total catch was noticed during 1981 as compared to 1980. While catches of silverbellies and whitebaits increased by 170 and 90 t respectively, the catch of perches showed a decline of about 110 t. The specieswise composition of total marine fish catch in Andamans for the years 1971 to 1981 is shown in Table 16.

## Lakshadweep

The total marine fish catch in Lakshadweep showed a marginal increase of about 400 t (13%) during 1981. This is mainly due to higher landings of tunnies which showed an increase of about 500 t. Elasmobranchs and perches, however, showed a decline of about 100 and 60 t respectively. Table 17 shows the specieswise

Table 16. Composition of marine fish landings in Andamans during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                     | 1971 | 1972 | 1973 | 1974 | 1975  | 1976  | 1977  | 1978  | 1979  | 1980  | 1981  |
|--------|----------------------------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1.     | Elasmobranchs                    | 22   | 18   | 33   | 27   | 48    | 72    | 90    | 89    | 88    | 56    | 35    |
| 2.     | Eels                             | —    | —    | —    | —    | —     | 1     | —     | —     | —     | —     | —     |
| 3.     | Catfishes                        | 14   | 15   | 8    | 14   | 15    | 19    | 28    | 33    | 55    | 32    | 22    |
| 4.     | <i>Chirocentrus</i>              | 11   | 13   | 5    | 18   | 35    | 33    | 38    | 40    | 45    | 25    | 25    |
| 5.     | a. Oil sardine                   | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | b. Lesser sardines               | 48   | 62   | 67   | 55   | 66    | 86    | 86    | 97    | 132   | 243   | 263   |
|        | c. <i>Hilsa ilisha</i>           | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | d. Other <i>Hilsa</i>            | 6    | 11   | 5    | 7    | 13    | 28    | 25    | 31    | 42    | 25    | 26    |
|        | e. <i>Anchoviella</i>            | 36   | 67   | 67   | 53   | 79    | 118   | 103   | 92    | 119   | 99    | 185   |
|        | f. <i>Thrissoles</i>             | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | g. Other clupeoids               | 9    | 12   | 5    | 18   | 9     | —     | 11    | 18    | 33    | 29    | —     |
| 6.     | a. <i>Harpodon nehereus</i>      | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | b. <i>Saurida &amp; Saurus</i>   | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 7.     | <i>Hemirhamphus &amp; Belone</i> | 17   | 13   | 10   | 9    | 16    | 35    | 53    | 61    | 88    | 41    | 17    |
| 8.     | Flying fish                      | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | 3     |
| 9.     | Perches                          | 79   | 87   | 103  | 114  | 157   | 142   | 196   | 234   | 239   | 302   | 192   |
| 10.    | Red mullets                      | —    | —    | —    | —    | —     | 2     | 4     | —     | —     | —     | —     |
| 11.    | Polynemids                       | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 12.    | Sciaenids                        | —    | —    | —    | —    | —     | 5     | —     | —     | —     | —     | —     |
| 13.    | Ribbon fish                      | —    | —    | —    | —    | —     | —     | —     | 1     | 3     | —     | 24    |
| 14.    | a. <i>Caranx</i>                 | 64   | 87   | 106  | 81   | 108   | 125   | 134   | 133   | 134   | 147   | 196   |
|        | b. <i>Chorinemus</i>             | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | c. <i>Trachynotus</i>            | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | d. Other carangids               | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | e. <i>Coryphaena</i>             | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | f. <i>Elacate</i>                | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 15.    | a. <i>Leiognathus</i>            | 41   | 54   | 50   | 47   | 80    | 117   | 97    | 89    | 78    | 102   | 275   |
|        | b. <i>Gazza</i>                  | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 16.    | <i>Lactarius</i>                 | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 17.    | Pomfrets                         | 10   | 7    | 6    | 11   | 14    | 30    | 30    | 25    | 29    | 15    | 6     |
| 18.    | Mackerel                         | 22   | 47   | 100  | 38   | 115   | 77    | 111   | 106   | 92    | 183   | 156   |
| 19.    | Seer fish                        | 46   | 75   | 91   | 63   | 85    | 93    | 119   | 127   | 138   | 117   | 149   |
| 20.    | Tunnies                          | 12   | 9    | 13   | 7    | 9     | 13    | 37    | 57    | 57    | 55    | 42    |
| 21.    | <i>Sphyræna</i>                  | 18   | 18   | 13   | 26   | 25    | 49    | 76    | 80    | 95    | 67    | 40    |
| 22.    | <i>Mugil</i>                     | 52   | 69   | 80   | 74   | 84    | 101   | 130   | 131   | 121   | 117   | 78    |
| 23.    | <i>Bregmaceros</i>               | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 24.    | Soles                            | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 25.    | a. Penaeid prawns                | 12   | 12   | 8    | 28   | 28    | 39    | 45    | 38    | 64    | 54    | 26    |
|        | b. Non penaeid prawns            | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
|        | c. Lobsters                      | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | 1     |
|        | d. Other crustaceans             | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | 14    |
| 26.    | Cephalopods                      | —    | —    | —    | —    | —     | —     | —     | —     | —     | —     | —     |
| 27.    | Miscellaneous                    | 50   | 104  | 84   | 230  | 118   | 149   | 119   | 97    | 69    | 94    | 87    |
| TOTAL  |                                  | 569  | 780  | 854  | 920  | 1,104 | 1,334 | 1,532 | 1,579 | 1,721 | 1,803 | 1,862 |

composition of total marine fish catch in Lakshadweep during 1971 to 1981.

### Species composition

Some changes have been effected in the specieswise presentation of catch data from 1981 onwards (Table 2). The estimates of marine fish catch were classified under 27 groups till 1980. This year the revision of these groups was done with a view to bring in the related genera/species of fishes under the relevant headings. For example *Chirocentrus* (wolf herring) has been brought under the broad category of clupeoids under which also fall oil sardine, lesser sardines, hilsa shad, other shads, anchovies and others. Under some groups, further categorisation was done on the basis of their commercial importance. For instance, the pomfrets have been categorised into black, silver and chinese

pomfrets. Because of their potential importance billfishes, hitherto falling under miscellaneous, have been grouped separately. *Trachynotus*, *Coryphaena* and *Elacate* have been brought under other carangids and similarly *Gazza* has been brought under silverbellies. Popular names have been given for all broad groupings and wherever changes in the names of fishes have been effected, the corresponding names hitherto followed are shown in brackets.

### Major groups of fishes

From Table 2 it is noticed that oil sardine accounted for 2,21,026 t forming about 16% of the total all India catch during 1981. The other major groups of species in the order of abundance in their catch are Bombay duck (1,37,790 t, 10.0%), penaeid prawns (83,539 t, 6.1%), sciaenids (82,686 t, 6.0%), silverbellies (69,449 t,

Table 17. Composition of marine fish landings in Lakshadweep during 1971 to 1981 (in tonnes)

| Sl.No. | Name of fish                        | 1971  | 1972  | 1973  | 1974  | 1975  | 1976  | 1977  | 1978  | 1979  | 1980  | 1981  |
|--------|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.     | Elasmobranchs                       | 120   | 157   | 171   | 253   | 325   | 354   | 296   | 198   | 364   | 284   | 211   |
| 2.     | Eels                                | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 3.     | Catfishes                           | —     | —     | —     | —     | 1     | —     | —     | —     | —     | —     | —     |
| 4.     | <i>Chirocentrus</i>                 | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 5.     | a. Oil sardine                      | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | b. Lesser sardines                  | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | c. <i>Hilsa ilisha</i>              | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | d. Other <i>Hilsa</i>               | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | e. <i>Anchoiella</i>                | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | f. <i>Thriposocles</i>              | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | g. Other clupeoids                  | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 6.     | a. <i>Harpodon nehereus</i>         | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | b. <i>Saurida</i> & <i>Saurus</i>   | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 7.     | <i>Hemirhamphus</i> & <i>Belone</i> | 9     | 19    | 99    | 27    | 29    | 33    | 58    | 144   | 101   | 99    | 113   |
| 8.     | Flying fish                         | 14    | 17    | 42    | 43    | 30    | 41    | 30    | 33    | 16    | 29    | 16    |
| 9.     | Perches                             | 43    | 83    | 130   | 159   | 186   | 193   | 211   | 163   | 203   | 376   | 315   |
| 10.    | Red mullets                         | 8     | 12    | 36    | 32    | 34    | 58    | 29    | 27    | 27    | 27    | 25    |
| 11.    | Polynemids                          | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 12.    | Sciaenids                           | —     | —     | —     | —     | 2     | —     | —     | —     | —     | —     | —     |
| 13.    | Ribbon fish                         | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 14.    | a. <i>Caranx</i>                    | 20    | 30    | 63    | 61    | 61    | 94    | 65    | 60    | 58    | 80    | 105   |
|        | b. <i>Chorinemus</i>                | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | c. <i>Trachynotus</i>               | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | d. Other carangids                  | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | e. <i>Coryphaena</i>                | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | f. <i>Elacate</i>                   | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 15.    | a. <i>Leiognathus</i>               | —     | —     | —     | —     | 5     | —     | —     | —     | —     | —     | —     |
|        | b. <i>Gazza</i>                     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 16.    | <i>Lactarius</i>                    | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 17.    | Pomfrets                            | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 18.    | Mackerel                            | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 19.    | Seer fish                           | 48    | 51    | 29    | 91    | 66    | 87    | 41    | 41    | 24    | 21    | 50    |
| 20.    | Tunnies                             | 774   | 514   | 1,020 | 1,254 | 1,932 | 1,291 | 1,166 | 1,875 | 2,794 | 1,760 | 2,236 |
| 21.    | <i>Sphyraena</i>                    | 7     | 8     | 11    | 18    | 17    | 20    | 15    | 18    | 11    | 14    | 12    |
| 22.    | <i>Mugil</i>                        | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 23.    | <i>Bregmaceros</i>                  | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 24.    | Soles                               | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 25.    | a. Penaeid prawns                   | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | b. Non penaeid prawns               | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | c. Lobsters                         | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
|        | d. Other crustaceans                | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 26.    | Cephalopods                         | 13    | 17    | 20    | 15    | 19    | 40    | 23    | 20    | 15    | 13    | 14    |
| 27.    | Miscellaneous                       | 134   | 172   | 232   | 279   | 224   | 361   | 281   | 201   | 233   | 206   | 203   |
| TOTAL  |                                     | 1,190 | 1,080 | 1,853 | 2,232 | 2,931 | 2,572 | 2,315 | 2,780 | 3,846 | 2,909 | 3,300 |

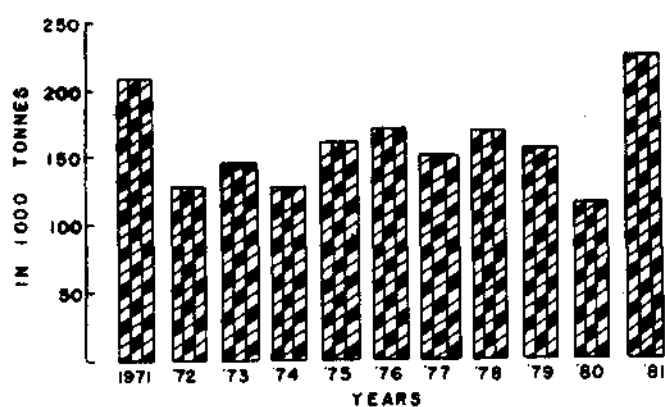


Fig. 2. Landings of oil sardine during 1971 to 1981.

5.0%), lesser sardines (61,980 t, 4.5%), non-penaeid prawns (61,430 t, 4.5%), cat fishes (59,390 t, 4.3%), elasmobranchs (56,008 t, 4.1%), pomfrets (48,728 t, 3.5%) and mackerel (48,660 t, 3.5%).

#### Oil sardine

During 1981, the oil sardine landings showed an increase of about 1,05,000 t (91%) as compared to 1980. Both Kerala and Karnataka landed substantial quantities contributing to the total all India oil sardine catch, their individual share being 66% and 30% respectively. The oil sardine landings during 1971 to 1981 showed wide fluctuations (Table 4 and Fig. 2). The maximum and minimum landings were recorded in 1981 and 1980 respectively.

#### Bombay duck

The Bombay duck catch during 1981 increased by about 42,000 t (44%). Higher landings in the states of Maharashtra and Gujarat accounted for the significant increase in the total catch of Bombay duck in India. While Maharashtra showed 59%, Gujarat recorded 39% of the country's total catch in Bombay duck. Wide fluctuations in the total catch of Bombay duck were seen during 1971 to 1981 (Table 4 and Fig. 3). The highest and the lowest catch were recorded in 1981 and 1972 respectively.

#### Penaeid prawns

A decline to the extent of about 28,000 t (25%) was noticed in the total catch of penaeid prawns during 1981 as compared to 1980. This decline was mainly brought about by a sharp fall in Kerala, particularly in Sakthikulangara area where the fall in the catch was to the extent of about 27,000 t. In Gujarat and Maharashtra also there was a decline to the tune of

about 3,500 and 1,700 t respectively in 1981 as compared to 1980. However, in Tamil Nadu, Andhra Pradesh and Karnataka the landings increased by about 4,500, 1,100 and 1,100 t respectively. Table 4 and Fig. 4 show year to year fluctuations of penaeid prawn landings in India from 1971 to 1981. While the maximum catch was recorded in 1975, the minimum was seen in 1971, the respective figures being 1.42 lakhs and 0.72 lakh t.

#### Sciaenids

The landings of sciaenids during 1981 showed a decline of about 6,700 t (7%) as compared to 1980. The states of Tamil Nadu, Kerala and Andhra Pradesh, recorded lesser landings to the extent of about 6,400,

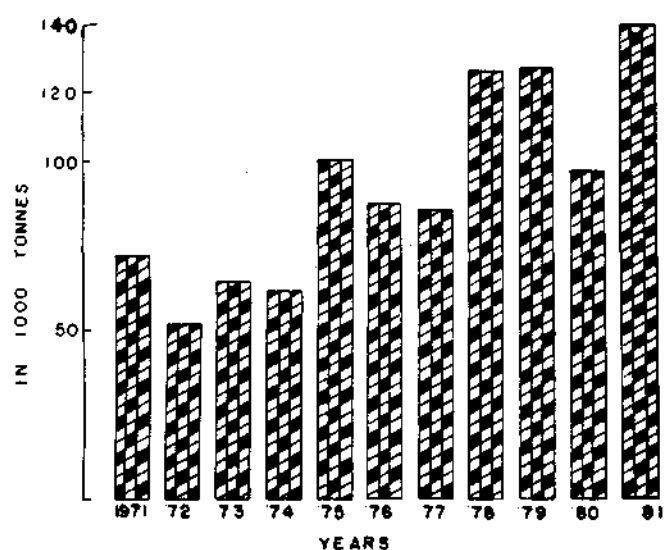


Fig. 3. Landings of Bombay duck (*Harpodon nehereus*) during 1971 to 1981.

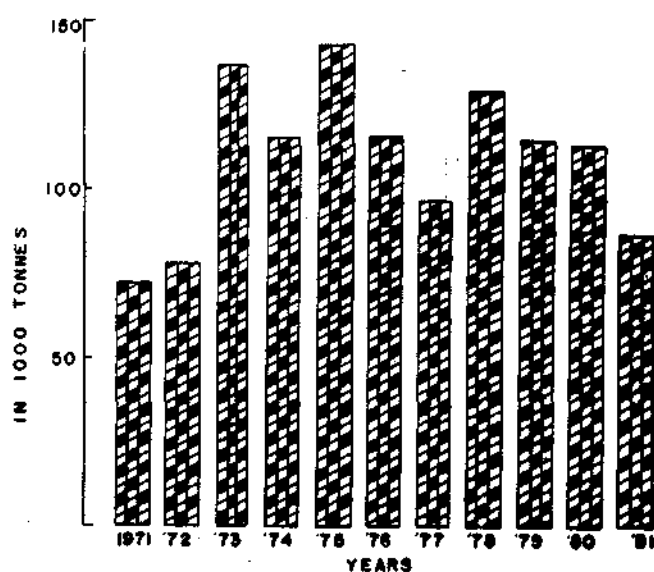


Fig. 4. Landings of penaeid prawns during 1971 to 1981.

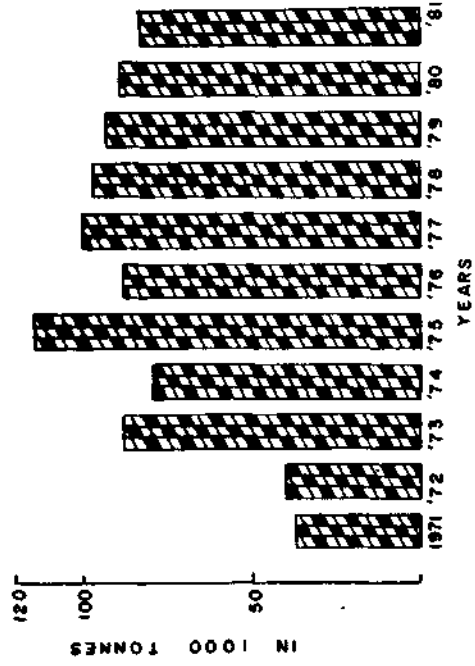


Fig. 5. Landings of sciaenids during 1971 to 1981

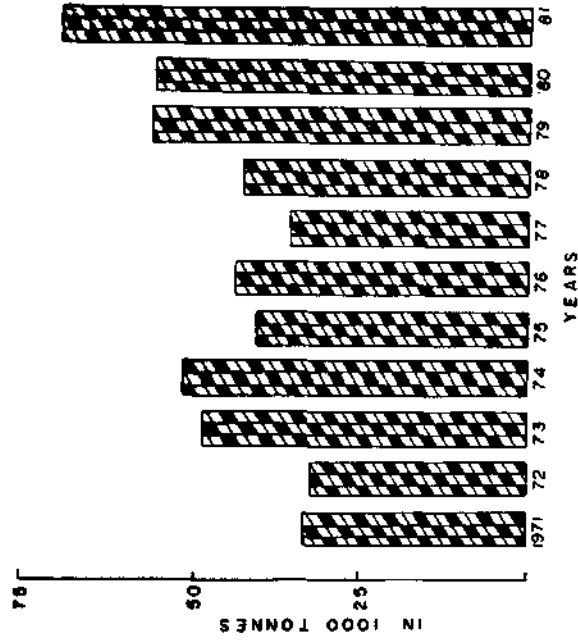


Fig. 6. Landings of silverbellies during 1971 to 1981

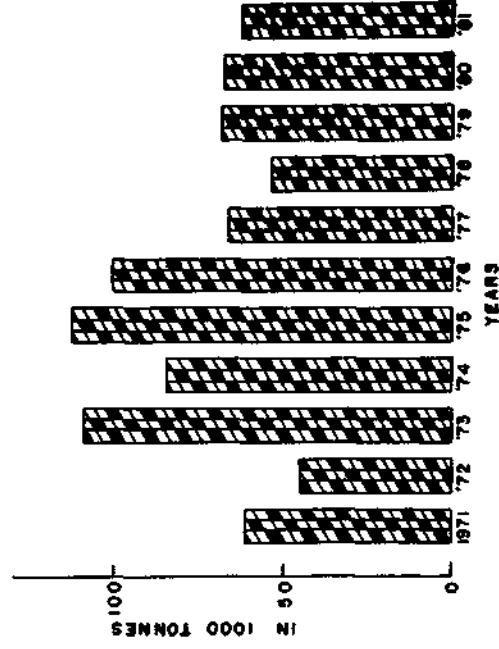


Fig. 7. Landings of lesser sardines during 1971 to 1981

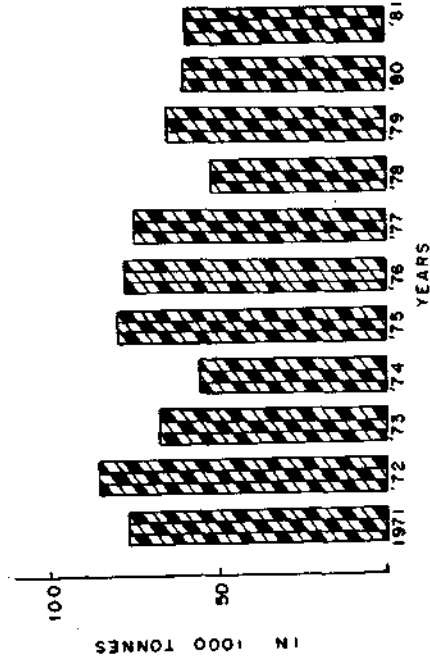


Fig. 8. Landings of non-petaeid prawns during 1971 to 1981

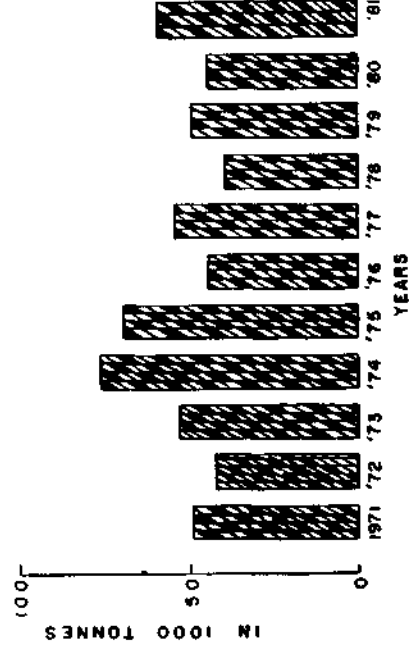


Fig. 9. Landings of catfishes during 1971 to 1981

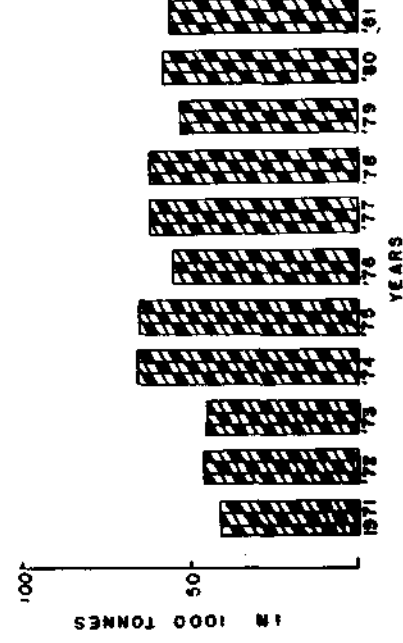


Fig. 10. Landings of elasmobranchs during 1971 to 1981

3,000 and 2,500 t respectively. The landings in Gujarat and Maharashtra, however, increased by about 3,600 and 3,500 t respectively. The sciaenids landings during 1971 to 1981 showed wide fluctuations (Fig. 5 and Table 4). The maximum and minimum landings were recorded in 1975 and 1971 respectively.

#### Silverbellies

An increase of about 15,000 t (27%) in the total catch of silverbellies was seen during 1981 as compared to 1980. This was mainly due to higher landings in the states of Tamil Nadu and Andhra Pradesh, the increase being about 13,000 and 6,000 t respectively. However, Karnataka and Kerala recorded lower landings to the extent of about 3,000 and 1,300 t respectively. Table 4 and Fig. 6 show annual landings of silverbellies during the years 1971 to 1981 which show fluctuating trend. While the maximum landings were recorded in 1981, the minimum catch was in 1972.

#### Lesser sardines

The total catch of lesser sardines declined by about 5,100 t (8%). Reduced landings in the states of Tamil Nadu, Kerala and Pondicherry by about 5,500, 3,400 and 1,400 t respectively brought down the total all India catch. Andhra Pradesh and Karnataka, however, recorded higher landings by about 1,800 and 1,200 t respectively. The landings of lesser sardines during the year 1971 to 1981 are presented in Table 4 and Fig. 7. The maximum and minimum landings were recorded in 1975 and 1972 respectively, the corresponding figures being 1,12,117 and 44,629 t.

#### Non-penaeid prawns

The landings of non-penaeid prawns during 1981 showed a marginal increase of about 2,700 t (5%). While Maharashtra and Gujarat recorded higher landings by about 5,500 and 600 t respectively, the landings in Andhra Pradesh and Kerala declined by about 2,700 and 1,500 t respectively. Table 4 and Fig. 8 give the trend in the yield of non-penaeid prawns during 1971 to 1981. While the maximum catch of 85,488 t was recorded in 1972 the minimum was recorded in 1978 (50,652 t.)

#### Catfishes

A substantial increase to the extent of about 15,600 t (36%) in the total catch of catfishes was noticed during 1981 as compared to 1980. This was possible by comparatively higher landings of catfishes in the states of

Gujarat, Maharashtra, Karnataka and Andhra Pradesh to the extent of about 5,100, 2,400, 2,100 and 1,900 t respectively. Kerala, however recorded lower landings by about 4,400 t. The trend in the catch of catfishes for the years 1971 to 1981 are shown in Table 4 and Fig. 9. While the maximum catch was recorded in 1974 (76,196 t), the minimum was seen in 1978 (39,231 t).

#### Elasmobranchs

The landings of elasmobranchs during 1981 declined marginally by about 1,900 t (3%). While Tamil Nadu, Kerala and Gujarat accounted for the decline by about 2,200, 1,900 and 1,100 t respectively, the landings in Maharashtra and Karnataka increased by about 1,900 and 1,200 t respectively. Fig. 10 and Table 4 show the catch trends during the 11 year period 1971 to 1981. The maximum catch of 66,054 t was recorded in 1974 and the minimum was observed in 1971 (41,348 t).

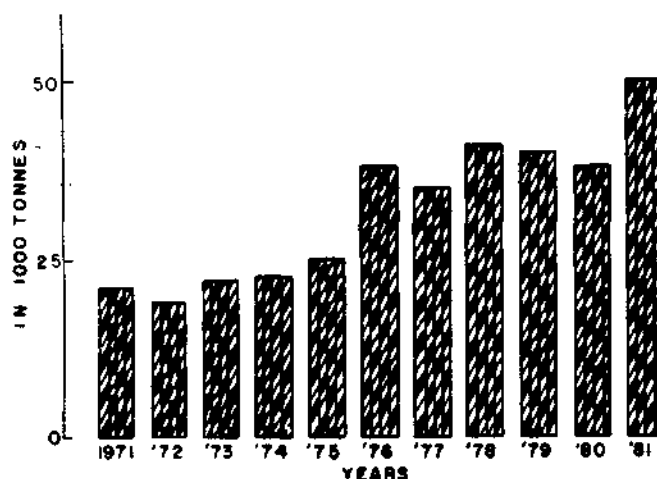


Fig. 11. Landings of pomfrets during 1971 to 1981.

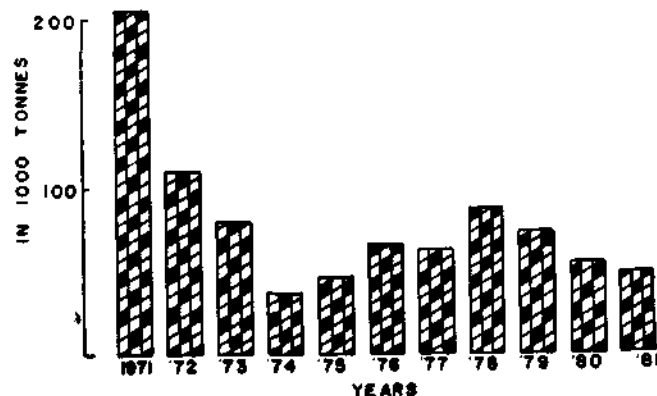


Fig. 12. Landings of mackerel during 1971 to 1981.

## Pomfrets

A significant increase of about 10,500 t (27%) in the total catch of pomfrets was observed during 1981. This was due to higher landings in the states of Maharashtra and Gujarat to the extent of about 7,100 and 6,600 t respectively. The catch in Orissa, however, showed a decline of about 5,400 t. The trend in the landings of pomfrets for the years 1971 to 1981 are shown in Table 4 and Fig. 11. While the maximum catch was recorded in 1981 (48,728 t), the minimum was seen in 1972 (19,007 t).

## Mackerel

The catch of mackerel during 1981 showed a decline of about 6,600 t (12%). While Tamil Nadu, Andhra

Pradesh and Kerala recorded lower landings by about 3,300, 2,900 and 2,300 t respectively, Goa accounted for an increase of about 1,500 t. Fig. 12 and Table 4 show the trend in the landings of mackerel during the years 1971 to 1981. The maximum catch of 204,575 t was recorded in 1971 and the minimum was observed in 1974 (37,462 t).

## Statewise mechanised and non-mechanised fishing in 1981

Table 18 shows the statewise total mechanised and non-mechanised landings and of important species viz. oil sardine, mackerel, Bombay duck, sciaenids, perches, pomfrets, tunnies, penaeid and non-penaeid prawns and others during 1981. The salient features in different states are summarised below.

**Table 18.** Statewise landings of marine fish from mechanised and non-mechanised fishing crafts during 1981 (in tonnes)

| STATE                      | WEST BENGAL   |                |               | ORISSA       |                   |               |                |               | ANDHRA PRADESH |                   |               |
|----------------------------|---------------|----------------|---------------|--------------|-------------------|---------------|----------------|---------------|----------------|-------------------|---------------|
| Name of fish               | Mechanised    | Non mechanised | Grand total   | Trawlers     | Mechanised Others | Total         | Non mechanised | Grand total   | Trawlers       | Mechanised Others | Total         |
| Oil sardine                | —             | —              | —             | —            | —                 | —             | —              | —             | —              | —                 | —             |
| Mackerel                   | —             | —              | —             | —            | —                 | —             | 823            | 823           | 45             | 3                 | 48            |
| Bombay duck                | 8             | 610            | 618           | 12           | —                 | 12            | 61             | 73            | 44             | —                 | 44            |
| Sciaenids                  | 47            | 223            | 270           | 1,629        | 48                | 1,677         | 456            | 2,133         | 2,851          | 2                 | 2,853         |
| Perches                    | 8             | 29             | 37            | 62           | —                 | 62            | 60             | 122           | 3,846          | 5                 | 3,851         |
| Pomfrets                   | 2,705         | 613            | 3,318         | 174          | 2,308             | 2,482         | 1,203          | 3,685         | 171            | —                 | 171           |
| Tunnies                    | —             | —              | —             | 9            | —                 | 9             | 241            | 250           | 7              | —                 | 7             |
| Penaeid prawns             | —             | 244            | 244           | 1,188        | —                 | 1,188         | 140            | 1,328         | 4,658          | 144               | 4,802         |
| Non-penaeid prawns         | —             | 1,251          | 1,251         | 53           | —                 | 53            | 2              | 55            | 387            | —                 | 387           |
| Others                     | 10,330        | 4,039          | 14,369        | 2,895        | 10,798            | 13,693        | 13,493         | 27,186        | 14,164         | 180               | 14,344        |
| <b>TOTAL</b>               | <b>13,098</b> | <b>7,009</b>   | <b>20,107</b> | <b>6,022</b> | <b>13,154</b>     | <b>19,176</b> | <b>16,479</b>  | <b>35,655</b> | <b>26,173</b>  | <b>334</b>        | <b>26,507</b> |
| No. of operations of units | 35,385        | 65,392         |               | 55,235       | 1,66,402          |               | 7,07,518       |               | 1,11,947       | —                 | —             |

| STATE                      | PONDICHERY   |            |              |                |               | KARNATAKA     |               |                   |                 |                |                 |
|----------------------------|--------------|------------|--------------|----------------|---------------|---------------|---------------|-------------------|-----------------|----------------|-----------------|
| Name of fish               | Mechanised   |            | Total        | Non mechanised | Grand total   | Trawlers      | Purse-seiners | Mechanised Others | Total           | Non mechanised | Grand total     |
| Oil sardine                | —            | —          | —            | —              | —             | 3,703         | 56,572        | 631               | 60,906          | 4,708          | 65,614          |
| Mackerel                   | —            | —          | —            | 316            | 316           | 15            | 15,432        | 100               | 15,547          | 4,219          | 19,766          |
| Bombay duck                | —            | —          | —            | —              | —             | —             | —             | —                 | —               | —              | —               |
| Sciaenids                  | 149          | —          | 149          | 181            | 330           | 848           | 140           | 2                 | 990             | 1,305          | 2,295           |
| Perches                    | 724          | —          | 724          | 208            | 932           | 134           | —             | 8                 | 142             | 256            | 398             |
| Pomfrets                   | 8            | —          | 8            | 115            | 123           | 29            | 6             | 17                | 52              | 367            | 419             |
| Tunnies                    | 1            | 34         | 35           | 20             | 55            | —             | 2,299         | 89                | 2,388           | 129            | 2,517           |
| Penaeid prawns             | 290          | —          | 290          | 46             | 336           | 3,231         | 133           | —                 | 3,364           | 758            | 4,122           |
| Non-penaeid prawns         | 10           | —          | 10           | 43             | 53            | 4             | —             | —                 | 4               | —              | 4               |
| Others                     | 2,345        | 220        | 2,565        | 6,045          | 8,610         | 24,506        | 20,892        | 727               | 46,125          | 12,089         | 58,214          |
| <b>TOTAL</b>               | <b>3,527</b> | <b>254</b> | <b>3,781</b> | <b>6,974</b>   | <b>10,755</b> | <b>32,470</b> | <b>95,474</b> | <b>1,574</b>      | <b>1,29,518</b> | <b>23,831</b>  | <b>1,53,349</b> |
| No. of operations of units | 33,766       | 1,120      |              | 2,23,897       |               | 1,18,297      | 31,123        | 4,616             |                 | 2,40,191       |                 |

## West Bengal

In West Bengal, the mechanised catch during 1981 formed about 65% of the total catch. The catch of pomfrets from mechanised crafts was 21%. From non-mechanised crafts, the catch of prawns, Bombay duck and pomfrets was 21, 9 and 9 per cent respectively of the total catch.

## Orissa

Fifty four per cent of the total catch in Orissa during 1981 came from mechanised crafts. The landings of pomfrets, sciaenids and prawns from mechanised crafts were 13, 9 and 6 per cent respectively. In non-mechanised fishing crafts, the catch of pomfrets formed about 7% and mackerel and sciaenids contributed to about 5% and 3% respectively of the total catch.

## Andhra Pradesh

In Andhra Pradesh, 23% of the total catch came from mechanised fishing crafts, the balance being from non-mechanised crafts. The catch of prawns in mechanised fishing crafts was 20%, the share of perches and sciaenids being 15 and 11% of the total catch. Sciaenids contributed 5% of the total non-mechanised catch while prawns, mackerel, pomfrets and perches landed 5, 4, 3 and 2 per cent respectively.

## Tamil Nadu

The share of mechanised catch in the total catch in Tamil Nadu during the year was 48%. Trawlers landed about 98% of the total mechanised catch. Prawns, sciaenids and perches contributed 11%, 10% and 3%

| TAMIL NADU             |                |            |        |          |                        |                | KERALA   |                                 |        |        |                        |                |
|------------------------|----------------|------------|--------|----------|------------------------|----------------|----------|---------------------------------|--------|--------|------------------------|----------------|
| Non<br>mecha-<br>nised | Grand<br>total | Mechanised |        | Total    | Non<br>mecha-<br>nised | Grand<br>total | Trawlers | Mechanised<br>Purse-<br>seiners | Others | Total  | Non<br>mecha-<br>nised | Grand<br>total |
| —                      | —              | —          | —      | —        | 195                    | 195            | 476      | 12,334                          | 22,738 | 35,548 | 1,11,438               | 1,46,986       |
| 3,207                  | 3,255          | 31         | 5      | 36       | 3,880                  | 3,916          | 19       | 3,932                           | 100    | 4,051  | 12,148                 | 16,199         |
| 801                    | 845            | —          | —      | —        | 3                      | 3              | —        | —                               | —      | —      | —                      | —              |
| 4,193                  | 7,046          | 10,273     | —      | 10,273   | 2,867                  | 13,140         | 2,305    | 3                               | 170    | 2,478  | 667                    | 3,145          |
| 1,837                  | 5,688          | 2,936      | 151    | 3,087    | 3,366                  | 6,453          | 6,473    | 3                               | 175    | 6,651  | 1,898                  | 8,549          |
| 2,527                  | 2,698          | 73         | 7      | 80       | 590                    | 670            | 8        | 22                              | 375    | 405    | 968                    | 1,373          |
| 331                    | 338            | —          | 564    | 564      | 3,256                  | 3,820          | —        | 222                             | 1,424  | 1,646  | 3,863                  | 5,509          |
| 1,926                  | 6,728          | 11,612     | 6      | 11,618   | 1,930                  | 13,548         | 16,305   | 1                               | 3      | 16,309 | 5,959                  | 22,268         |
| 1,220                  | 1,607          | 72         | —      | 72       | 632                    | 704            | —        | —                               | —      | —      | 160                    | 160            |
| 73,594                 | 87,938         | 79,448     | 1,486  | 80,934   | 97,913                 | 1,78,847       | 23,727   | 1,156                           | 4,350  | 29,233 | 40,973                 | 70,206         |
| 89,636                 | 1,16,143       | 1,04,445   | 2,219  | 1,06,664 | 1,14,632               | 2,21,296       | 49,313   | 17,673                          | 29,335 | 96,321 | 1,78,074               | 2,74,395       |
| 3,56,085               | —              | 4,43,818   | 11,294 | —        | 34,50,818              | —              | 2,68,045 | 6,760                           | 70,733 | —      | 18,66,475              | —              |

| GOA      |                      |        |                        |                | MAHARASHTRA   |                      |          |                        |                | GUJARAT       |                      |          |                        |                |
|----------|----------------------|--------|------------------------|----------------|---------------|----------------------|----------|------------------------|----------------|---------------|----------------------|----------|------------------------|----------------|
| Trawlers | Mechanised<br>Others | Total  | Non<br>mecha-<br>nised | Grand<br>total | Traw-<br>lers | Mechanised<br>Others | Total    | Non<br>mecha-<br>nised | Grand<br>total | Traw-<br>lers | Mechanised<br>Others | Total    | Non<br>mecha-<br>nised | Grand<br>total |
| 14       | 6,663                | 6,677  | 932                    | 7,609          | 95            | 332                  | 427      | 195                    | 622            | —             | —                    | —        | —                      | —              |
| 9        | 3,558                | 3,567  | 372                    | 3,939          | 4             | 42                   | 46       | 243                    | 289            | —             | —                    | —        | —                      | —              |
| —        | —                    | —      | 1                      | 1              | 280           | 79,349               | 79,629   | 2,507                  | 82,136         | 2,532         | 16,448               | 18,980   | 35,134                 | 54,114         |
| 1,417    | 1                    | 1,418  | 192                    | 1,610          | 10,012        | 4,372                | 14,384   | 3,091                  | 17,475         | 26,685        | 5,710                | 32,395   | 2,847                  | 35,242         |
| 750      | 225                  | 975    | 208                    | 1,183          | 2,201         | 266                  | 2,467    | 150                    | 2,617          | 3,491         | 620                  | 4,111    | 721                    | 4,832          |
| 44       | 40                   | 84     | 39                     | 123            | 246           | 14,579               | 14,825   | 2,319                  | 17,144         | 2,613         | 13,935               | 16,548   | 2,621                  | 19,169         |
| 46       | 42                   | 88     | 100                    | 188            | 457           | 719                  | 1,176    | 72                     | 1,248          | 126           | 1,380                | 1,506    | 94                     | 1,600          |
| 2,025    | 7                    | 2,032  | 205                    | 2,237          | 13,737        | 5,569                | 19,306   | 2,411                  | 21,717         | 7,949         | 419                  | 8,368    | 2,617                  | 10,985         |
| —        | —                    | —      | —                      | —              | 1,171         | 46,257               | 47,428   | 5,426                  | 52,854         | 856           | 1,698                | 2,554    | 2,188                  | 4,742          |
| 9,771    | 4,901                | 14,672 | 2,936                  | 17,608         | 22,563        | 39,009               | 61,572   | 14,913                 | 76,485         | 54,547        | 34,441               | 88,988   | 14,838                 | 1,03,826       |
| 14,076   | 15,437               | 29,513 | 4,985                  | 34,498         | 50,766        | 1,90,494             | 2,41,260 | 31,327                 | 2,72,587       | 98,799        | 74,651               | 1,73,450 | 61,060                 | 2,34,510       |
| 61,188   | 19,292               | 80,480 | 97,215                 | —              | 72,746        | 2,59,471             | —        | 3,03,749               | —              | 1,21,497      | 2,61,970             | —        | 5,65,576               | —              |

Table 19. Composition of marine fish landings from mechanised boats at major fish landings centres along the east coast of India (in tonnes)

| Sl.No. | Name of fish   | Visakhapatnam<br>outer harbour |                   | Kakinada fisheries<br>harbour |                   | Pudumanikuppam |                     |               | Cuddalore fisheries harbour |                     |               |
|--------|--|--------------------------------|-------------------|-------------------------------|-------------------|----------------|---------------------|---------------|-----------------------------|---------------------|---------------|
|        |  | Trawl net<br>1981              | Trawl net<br>1980 | Trawl net<br>1981             | Trawl net<br>1980 | Trawl<br>net   | Gill<br>net<br>1981 | Total<br>1980 | Trawl<br>net                | Gill<br>net<br>1981 | Total<br>1980 |
| 1.     | Elasmobranchs  |                                | 187               |                               | 188               |                |                     | 145           |                             |                     | 26            |
| a.     | Sharks   | 22                             | —                 | 56                            | —                 | 87             | 95                  | 182           | —                           | 44                  | 44            |
| b.     | Skates   | 42                             | —                 | 47                            | —                 | 11             | 1                   | 12            | —                           | —                   | —             |
| c.     | Rays   | 78                             | —                 | 304                           | —                 | 214            | 71                  | 285           | 9                           | —                   | 9             |
| 2.     | Eels   | 16                             | 12                | 141                           | 133               | 9              | —                   | 9             | —                           | —                   | —             |
| 3.     | Catfishes  | 150                            | 197               | 190                           | 131               | 15             | 6                   | 21            | 1                           | —                   | 1             |
| 4.     | Clupeoids  | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| a.     | Wolf herring ( <i>Chirocentrus</i> )                               | 5                              | 1                 | —                             | —                 | 1              | —                   | 1             | —                           | —                   | —             |
| b.     | Oil sardine  | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| c.     | Other sardines (Lesser sardines)                                   | 35                             | 1                 | 2                             | 22                | 2              | —                   | 2             | —                           | —                   | —             |
| d.     | Hilsa shad ( <i>Hilsa ilisha</i> )                                 | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| e.     | Other shads (Other <i>Hilsa</i> )                                  | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| f.     | Anchovies  | —                              | —                 | —                             | —                 | —              | —                   | —             | 1                           | —                   | 1             |
|        | <i>Coilia</i>  | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
|        | <i>Setipinna</i>   | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
|        | <i>Stolephorus</i> ( <i>Anchoviella</i> )                          | 133                            | 116               | 187                           | 540               | 166            | —                   | 166           | 15                          | —                   | 15            |
|        | <i>Thryssa</i>   | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
|        | <i>Thryssa</i> ( <i>Thryssocles</i> )                              | 68                             | 101               | 81                            | 217               | 59             | —                   | 59            | 1                           | —                   | 1             |
| g.     | Other clupeoids  | 28                             | —                 | 106                           | 167               | —              | —                   | —             | 24                          | —                   | 24            |
| 5.     | Bombay duck ( <i>Harpodon nehereus</i> )                           | —                              | 6                 | 34                            | 70                | —              | —                   | —             | —                           | —                   | —             |
| 6.     | Lizard fishes ( <i>Saurida</i> & <i>Saurus</i> )                   | 501                            | 622               | 219                           | 130               | 464            | —                   | 464           | 117                         | —                   | 117           |
| 7.     | Half beaks & full beaks<br>( <i>Hemirhamphus</i> & <i>Belone</i> ) | —                              | —                 | —                             | 19                | —              | —                   | —             | —                           | —                   | —             |
| 8.     | Flying fishes  | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| 9.     | Perches  | —                              | 1,736             | —                             | 447               | —              | —                   | 208           | —                           | —                   | 292           |
| a.     | Rock cods  | 3                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| b.     | Snappers   | —                              | —                 | 2                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| c.     | Pig-face brems   | —                              | —                 | —                             | —                 | —              | —                   | —             | —                           | —                   | —             |
| d.     | Threadfin brems  | 361                            | —                 | 417                           | —                 | 795            | —                   | 795           | 98                          | —                   | 98            |
| e.     | Other perches  | 656                            | —                 | 378                           | —                 | 357            | —                   | 357           | 28                          | —                   | 28            |
| 10.    | Goatfishes (Red mullets)   | 102                            | 86                | 28                            | 79                | 6              | —                   | 6             | 27                          | —                   | 27            |
| 11.    | Threadfins (Polynemids)  | 39                             | 22                | 10                            | 16                | 2              | —                   | 2             | 6                           | —                   | 6             |
| 12.    | Croakers (Sciaenids)   | 601                            | 898               | 507                           | 911               | 507            | —                   | 507           | 73                          | —                   | 73            |
| 13.    | Ribbon fishes  | 853                            | 492               | 318                           | 885               | 186            | —                   | 186           | 107                         | 2                   | 2             |
| 14.    | Carangids  | —                              | 858               | —                             | 390               | —              | —                   | —             | —                           | —                   | —             |
| a.     | Horse mackerel   | —                              | —                 | —                             | —                 | —              | —                   | 8             | —                           | —                   | 6             |
| b.     | Scads  | 333                            | —                 | 1,203                         | —                 | 10             | —                   | 10            | —                           | —                   | —             |
| c.     | Leather-jackets ( <i>Chorinemus</i> )                              | —                              | —                 | —                             | —                 | 2              | 5                   | 7             | —                           | 4                   | 4             |
| d.     | Other carangids  | 83                             | —                 | 71                            | 90                | 39             | 10                  | 49            | 16                          | —                   | 16            |



Table 19 Contd.

|                                    |  |        |        |        |        |        |       |       |        |       |     |       |        |
|------------------------------------|--|--------|--------|--------|--------|--------|-------|-------|--------|-------|-----|-------|--------|
| 15.                                | Silver bellies ( <i>Leiognathus</i> & <i>Gazza</i> ) | 380    | 503    | 393    | 588    | 1,577  | —     | 1,577 | 162    | 334   | —   | 334   | 643    |
| 16.                                | Big-jawed jumper ( <i>Lactarius</i> )                | 54     | 23     | 15     | 60     | —      | —     | —     | —      | —     | —   | —     | 4      |
| 17.                                | Pomfrets   | —      | 5      | —      | 15     | —      | —     | —     | —      | —     | —   | —     | 2      |
| a.                                 | Black pomfret  | 7      | —      | —      | —      | 2      | 1     | 3     | —      | —     | —   | —     | —      |
| b.                                 | Silver pomfret                                       | 13     | —      | 11     | —      | 2      | —     | 2     | —      | —     | —   | —     | —      |
| c.                                 | Chinese pomfret                                      | —      | —      | —      | —      | —      | —     | —     | —      | 1     | —   | 1     | —      |
| 18.                                | Mackerel   | —      | 76     | —      | 161    | —      | —     | —     | —      | —     | —   | —     | —      |
| a.                                 | Indian mackerel                                      | 8      | —      | 1      | —      | 9      | —     | 9     | —      | —     | —   | —     | —      |
| b.                                 | Other mackerels                                      | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| 19.                                | Seer fishes  | —      | —      | —      | —      | —      | —     | —     | 25     | —     | —   | —     | —      |
| a.                                 | <i>S. commersoni</i>                                 | —      | —      | —      | —      | 12     | 69    | 81    | —      | —     | 23  | 23    | 1      |
| b.                                 | <i>S. guttatus</i>                                   | 1      | —      | —      | —      | 4      | 31    | 35    | —      | —     | —   | —     | —      |
| c.                                 | <i>S. lineolatus</i>                                 | —      | —      | —      | —      | —      | 9     | 9     | —      | —     | —   | —     | —      |
| d.                                 | <i>Acanthocybium</i> Sp.                             | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| 20.                                | Tunnies  | —      | —      | —      | —      | —      | —     | —     | 4      | —     | —   | —     | 1      |
| a.                                 | <i>E. affinis</i>                                    | —      | —      | —      | —      | —      | 10    | 10    | —      | —     | 23  | 23    | —      |
| b.                                 | <i>Auxis</i> spp.                                    | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| c.                                 | <i>K. pelamis</i>                                    | —      | —      | —      | —      | —      | 8     | 8     | —      | —     | —   | —     | —      |
| d.                                 | <i>T. tonggol</i>                                    | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| e.                                 | Other tunnies  | —      | —      | —      | —      | —      | 3     | 3     | —      | —     | —   | —     | —      |
| 21.                                | Billi fishes   | —      | —      | —      | —      | —      | 19    | 19    | —      | —     | 6   | 6     | —      |
| 22.                                | Barracudas ( <i>Sphyraena</i> )                      | 14     | 2      | 21     | 11     | 11     | —     | 11    | 6      | —     | 4   | 4     | 1      |
| 23.                                | Mullets ( <i>Mugil</i> )                             | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| 24.                                | Unicorn cod ( <i>Bregmaceros</i> )                   | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| 25.                                | Flatfishes   | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| a.                                 | Halibut ( <i>Psettodes erumei</i> )                  | 5      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| b.                                 | Flounders  | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| c.                                 | Soles  | 74     | 135    | 94     | 161    | 46     | —     | 46    | 4      | 14    | —   | 14    | 13     |
| 26.                                | Crustaceans  | —      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| a.                                 | Penaeid prawns                                       | 816    | 784    | 1,953  | 1,865  | 1,023  | —     | 1,023 | 165    | 104   | —   | 104   | 121    |
| b.                                 | Non penaeid prawns                                   | 1      | —      | 366    | 833    | 174    | —     | 174   | —      | —     | —   | —     | —      |
| c.                                 | Lobsters   | 1      | —      | —      | —      | —      | —     | —     | —      | —     | —   | —     | —      |
| d.                                 | Crabs  | 361    | 400    | 254    | 352    | —      | —     | —     | 51     | 31    | —   | 31    | 25     |
| e.                                 | Stomatopods  | 12     | —      | 254    | —      | —      | —     | —     | 11     | 2     | —   | 2     | 6      |
| 27.                                | Cephalopods  | 206    | 246    | 88     | 126    | 128    | —     | 128   | 44     | 28    | —   | 28    | 40     |
| 28.                                | Miscellaneous  | 44     | 542    | 165    | 418    | 281    | 1     | 282   | 270    | 78    | —   | 78    | 175    |
| TOTAL                              |  | 6,106  | 8,051  | 7,916  | 9,025  | 6,201  | 339   | 6,540 | 1,496  | 1,004 | 104 | 1,108 | 1,969  |
| No. of operations of fishing units |  | 31,689 | 35,406 | 35,715 | 40,674 | 26,671 | 2,127 | —     | 14,129 | 8,043 | 863 | —     | 16,012 |

Table 19. Composition of marine fish landings from mechanised boats at major fish landing centre along the east coast of India (in tonnes)

(Continued)

| Sl.No. | Name of fish   | Nagapatnam        |                   | Mandapam          |                   | Rameswaram        |                  |               | Tuticorin fisheries harbour |                  |       | 1980  |
|--------|--|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|---------------|-----------------------------|------------------|-------|-------|
|        |  | Trawl net<br>1981 | Trawl net<br>1980 | Trawl net<br>1981 | Trawl net<br>1980 | Trawl net<br>1981 | Gill net<br>1981 | Total<br>1980 | Trawl net<br>1981           | Gill net<br>1981 | Total |       |
| 1.     | Elasmobranchs  | —                 | 78                | —                 | 142               | —                 | —                | —             | 2,370                       | —                | —     | 751   |
| a.     | Sharks   | 25                | —                 | 1                 | —                 | —                 | 2                | 2             | 278                         | 2                | 280   | —     |
| b.     | Skates   | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| c.     | Rays   | 138               | —                 | 289               | —                 | 3,453             | —                | 3,453         | 325                         | 2                | 327   | —     |
| 2.     | Eels   | 12                | 5                 | 4                 | —                 | —                 | —                | —             | 2                           | —                | 2     | —     |
| 3.     | Cat fishes   | 51                | 4                 | 153               | 81                | 79                | 2                | 81            | 393                         | 1                | 394   | 5     |
| 4.     | Clupeoids  | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| a.     | Wolf herring ( <i>Chirocentrus</i> )                               | 15                | —                 | 3                 | —                 | —                 | 4                | 4             | 92                          | 3                | 95    | 7     |
| b.     | Oil sardine  | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| c.     | Other sardines (Lesser sardines)                                   | 2                 | 2                 | 47                | 36                | 11                | —                | 11            | 50                          | 1                | 51    | —     |
| d.     | Hilsa shad ( <i>Hilsa ilisha</i> )                                 | —                 | —                 | 12                | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| e.     | Other shads (Other Hilsa)  | —                 | —                 | 16                | 11                | 95                | —                | 95            | —                           | —                | —     | 8     |
| f.     | Anchovies  | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
|        | <i>Coilia</i>  | 171               | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
|        | <i>Setipinna</i>   | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
|        | <i>Stolephorus</i> ( <i>Anchoviella</i> )                          | 183               | 253               | —                 | —                 | —                 | —                | —             | 226                         | —                | 226   | 90    |
|        | <i>Thrissina</i>   | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
|        | <i>Thryssa</i> ( <i>Thrissocles</i> )                              | 114               | 17                | 36                | 6                 | 1                 | —                | 1             | 1,120                       | —                | 1,120 | 20    |
| g.     | Other clupeoids  | 247               | 241               | 62                | 4                 | 9                 | —                | 9             | 432                         | 3                | 435   | 34    |
| 5.     | Bombay duck ( <i>Harporodon nehereus</i> )                         | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| 6.     | Lizard fishes ( <i>Saurida</i> & <i>Saurus</i> )                   | 146               | 91                | 10                | 5                 | 205               | —                | 205           | 18                          | —                | 18    | 37    |
| 7.     | Half beaks & full beaks<br>( <i>Hemirhamphus</i> & <i>Belone</i> ) | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| 8.     | Flying fishes  | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| 9.     | Perches  | —                 | 142               | —                 | 1                 | —                 | —                | —             | 13                          | —                | —     | 19    |
| a.     | Rock cods  | —                 | —                 | 9                 | —                 | —                 | —                | —             | 4                           | 3                | 7     | —     |
| b.     | Snappers   | —                 | —                 | —                 | —                 | —                 | —                | —             | 7                           | —                | 7     | —     |
| c.     | Pig-face breams  | —                 | —                 | 2                 | —                 | —                 | —                | —             | 4                           | —                | 4     | —     |
| d.     | Threadfin breams   | 248               | —                 | 2                 | —                 | —                 | —                | —             | 15                          | —                | 15    | —     |
| e.     | Other perches  | 112               | —                 | 70                | —                 | 55                | —                | 55            | 9                           | 1                | 10    | —     |
| 10.    | Goatfishes (Red mullets)   | 10                | 19                | 52                | 32                | 508               | —                | 508           | —                           | —                | —     | —     |
| 11.    | Threadfins (Polynemids)  | —                 | —                 | 1                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| 12.    | Croakers ( <i>Sciaenids</i> )                                      | 500               | 199               | 280               | 64                | 2,126             | —                | 2,126         | 816                         | 704              | 704   | 1,010 |
| 13.    | Ribbon fishes  | 75                | 26                | 11                | —                 | —                 | —                | —             | 87                          | —                | 87    | 32    |
| 14.    | Carangids  | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| a.     | Horse mackerel   | —                 | 65                | —                 | 1                 | —                 | —                | —             | 15                          | —                | —     | —     |
| b.     | Scads  | —                 | —                 | —                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| c.     | Leather-jackets ( <i>Chorinemus</i> )                              | —                 | —                 | 6                 | —                 | —                 | —                | —             | —                           | —                | —     | —     |
| d.     | Other carangids  | 142               | —                 | 29                | —                 | 17                | —                | 17            | 3                           | 1                | 4     | —     |

Table 19 Contd.

|                                    |  |        |       |        |        |         |    |        |        |        |    |        |        |
|------------------------------------|--|--------|-------|--------|--------|---------|----|--------|--------|--------|----|--------|--------|
| 15.                                | Silver bellies ( <i>Leiognathus</i> & <i>Gazza</i> ) | 756    | 449   | 3,194  | 1,592  | 10,310  | —  | 10,310 | 7,474  | 1,714  | —  | 1,714  | 543    |
| 16.                                | Big-jawed jumper ( <i>Lactarius</i> )                | 49     | 39    | 2      | 1      | —       | —  | —      | —      | 11     | 4  | 15     | —      |
| 17.                                | Pomfrets   | —      | 7     | —      | 2      | —       | —  | —      | —      | —      | —  | —      | —      |
| a.                                 | Black pomfret  | 5      | —     | 1      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| b.                                 | Silver pomfret                                       | 28     | —     | 3      | —      | —       | —  | —      | —      | 2      | —  | 2      | —      |
| c.                                 | Chinese pomfret                                      | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| 18.                                | Mackerel   | —      | 1     | —      | 1      | —       | —  | —      | 2      | —      | —  | —      | —      |
| a.                                 | Indian mackerel                                      | —      | —     | —      | —      | 4       | —  | 4      | —      | —      | 5  | 5      | —      |
| b.                                 | Other mackerels                                      | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| 19.                                | Seer Fishes  | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | 14     |
| a.                                 | <i>S. commersoni</i>                                 | —      | —     | —      | —      | —       | —  | —      | —      | 1      | 7  | 8      | —      |
| b.                                 | <i>S. guttatus</i>                                   | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| c.                                 | <i>S. lineolatus</i>                                 | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| d.                                 | <i>Acanthocybium</i> Sp.                             | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| 20.                                | Tunnies  | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| a.                                 | <i>E. affinis</i>                                    | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| b.                                 | <i>Auxis</i> spp.                                    | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| c.                                 | <i>K. pelamis</i>                                    | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| d.                                 | <i>T. tonggol</i>                                    | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| e.                                 | Other tunnies  | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| 21.                                | Bill fishes  | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| 22.                                | Barracudas ( <i>Sphyraena</i> )                      | 17     | 1     | —      | —      | —       | —  | —      | —      | 13     | 3  | 16     | —      |
| 23.                                | Mulletts ( <i>Mugil</i> )                            | 3      | 2     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| 24.                                | Unicorn Cod ( <i>Bregmaceros</i> )                   | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| 25.                                | Flatfishes   | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| a.                                 | Halibut ( <i>Psettodes erumei</i> )                  | 60     | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| b.                                 | Flounders  | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| c.                                 | Soles  | 92     | 66    | 65     | 34     | 169     | —  | 169    | 136    | 89     | —  | 89     | 278    |
| 26.                                | Crustaceans  | —      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| a.                                 | Penaeid prawns                                       | 349    | 112   | 803    | 217    | 2,101   | —  | 2,101  | 1,367  | 3,431  | —  | 3,431  | 626    |
| b.                                 | Non penaeid prawns                                   | 24     | 13    | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| c.                                 | Lobsters   | 3      | —     | —      | —      | —       | —  | —      | —      | —      | —  | —      | —      |
| d.                                 | Crabs  | 91     | 35    | 232    | 150    | 640     | —  | 640    | 401    | 42     | —  | 42     | 41     |
| e.                                 | Stomatopods  | —      | —     | 13     | 1      | 50      | —  | 50     | 201    | —      | —  | —      | —      |
| 27.                                | Cephalopods  | 22     | 13    | 31     | 33     | 158     | —  | 158    | 90     | 23     | —  | 23     | —      |
| 28.                                | Miscellaneous  | 183    | 127   | 20     | 118    | 587     | —  | 587    | 717    | 3,274  | 3  | 3,277  | 3,070  |
| TOTAL                              |  | 3,873  | 2,007 | 5,459  | 2,533  | 20,578  | 8  | 20,586 | 14,378 | 12,369 | 39 | 12,408 | 6,585  |
| No. of operations of fishing units |  | 15,827 | 9,307 | 47,840 | 25,143 | 101,449 | 79 | 78,758 | 31,846 | 235    | —  | —      | 30,711 |

respectively to the total mechanised catch. From non-mechanised fishing crafts the landings of mackerel, perches, tunnies, sciaenids and prawns were about 3,900, 3,400, 3,300, 2,900 and 2,600 t respectively.

### **Pondicherry**

In Pondicherry, the mechanised catch during 1981 formed about 35% of the total catch, of which 93% came from trawlers.

### **Kerala**

Mechanised boats in Kerala during the year landed about 35% of the total catch. Out of the total mechanised catch of about 96,300 t, trawlers, purse seiners and others landed about 51%, 18% and 31% respectively. In trawler landings, prawns formed about 33% of the total catch from the craft. Oil sardine and mackerel were the major fishes landed by the purseseinners, their contributions being 70% and 22% respectively. From non-mechanised fishing crafts, the landings of oil sardine and mackerel formed about 63% and 7% respectively.

### **Karnataka**

In Karnataka, 84% of the total catch came from mechanised fishing crafts. Out of a total of about 130,000 t of mechanised catch, the share of purse-seiners, trawlers and others was 74%, 25% and 1% respectively. The landings of oil sardine and mackerel from purse seines were 56,600 (59%) and 15,400 (16%) t respectively. From non-mechanised boats, the landings of oil sardine, mackerel and sciaenids formed about 20%, 18% and 5% respectively.

### **Goa**

The landings from mechanised fishing crafts in Goa represented about 86%. Trawlers landed about 48% of the total mechanised catch. The landings of prawns, sciaenids and perches in trawlers were 2,000, 1,400 and 750 t respectively. Oil sardine and mackerel from non-mechanised fishing crafts formed about 19% and 7% respectively.

### **Maharashtra**

In Maharashtra, the mechanised catch during 1981 formed about 89% of the total catch. The share of trawler catch in the total mechanised catch was about 21%. Prawns and sciaenids landings amounted to 14,908 (29%) and 10,000 t (20%) respectively from

the trawlers. In non-mechanised fishing crafts, the landings of prawns, sciaenids, Bombay duck and pomfrets were 7,837 (25%), 3,091 (10%), 2,507 (8%) and 2,319 (7%) t respectively.

### **Gujarat**

The landings from mechanised fishing crafts in Gujarat formed about 74% of the total catch in 1981. The trawler catch was about 57% of the total mechanised landings. Sciaenids and prawns landed about 27% and 9% respectively of the total catch from trawlers. In non-mechanised fishing crafts the share of Bombay duck was about 58% of the total catch.

### **Landings of mechanised boats at important landing centres**

#### **Vishakhapatnam Outer Harbour**

The total landings from trawlers during 1981 showed a decline of about 1,900 t (24%) as compared to 1980 (Table 19). The number of operations also declined by about 3,700. The catch per unit effort during 1981 and 1980 was 193 and 227 kg respectively. The decline in the total landings was mainly due to lower landings of perches, carangids, croakers and silver bellies to the extent of about 720, 440, 300 and 120 t respectively. The landings of ribbon fish, however, showed an increase of about 360 t.

#### **Kakinada Fisheries Harbour**

Both the catch and the number of operations of trawlers declined during 1981 as compared to the previous year, the former by 1,109 t (12%) and the latter by 4,959 (12%) (Table 19). The catch per unit effort, however, remained more or less the same (222 kg) in 1981 and 1980. The lesser catch of clupeoids, ribbon fish, non-penaeid prawns, croakers, silverbellies and crabs by about 570, 570, 470, 400, 200 and 100 t respectively brought about the reduced total catch during 1981. However, an increase in the landings of carangids, perches, elasmobranchs and penaeid prawns by about 800, 350, 220 and 90 t respectively was noticed.

#### **Padumanikuppam**

The total landings from trawlers and gill netters during 1981 showed an increase of about 5,000 tonnes. (Table 19). In 1981, while 95% of the total mechanised catch was from trawlers, the balance came from gill netters. The catch per unit effort in respect of

Table 20. Composition of marine fish landing from mechanised boats at major fish landing centres along the west coast of India (in tonnes).

| Sl.No. | Name of fish   | SAKTHIKULANGARA |          |        | COCHIN FISHERIES HARBOUR |          |             |        |
|--------|--|-----------------|----------|--------|--------------------------|----------|-------------|--------|
|        |  | 1981            |          | 1980   | 1981                     |          | 1980        |        |
|        |  | Trawl net       | Gill net | Total  | Trawl net                | Gill net | Purse-seine | Total  |
| 1.     | Elasmobranchs  |                 |          | 1,722  |                          |          |             | 523    |
| a.     | Sharks   | 7               | 402      | 409    | 7                        | 465      | 1           | 473    |
| b.     | Skates   |                 | 23       | 23     | 1                        | 9        |             | 10     |
| c.     | Rays   | 325             | 15       | 340    | 47                       | 36       | 5           | 88     |
| 2.     | Eels   | 2               |          | 2      | 1                        |          |             | 1      |
| 3.     | Catfishes  | 3,406           | 183      | 3,589  | 253                      | 389      | 134         | 776    |
| 4.     | Clupeoids  |                 |          |        |                          |          |             |        |
| a.     | Wolf herring ( <i>Chirocentrus</i> )                         |                 | 2        | 2      |                          | 6        |             | 6      |
| b.     | Oil sardine  | 24              |          | 24     | 189                      | 2        | 12,165      | 12,356 |
| c.     | Other sardines (Lesser sardines)                             |                 |          |        |                          |          | 372         | 372    |
| d.     | Hilsa shad ( <i>Hilsa ilisha</i> )                           |                 |          |        |                          |          |             | 10,431 |
| e.     | Other shads (Other <i>Hilsa</i> )                            |                 |          |        |                          |          |             | 197    |
| f.     | Anchovies  |                 |          |        |                          |          |             |        |
|        | Coilia   |                 |          |        |                          |          |             |        |
|        | Setipinna  |                 |          |        |                          |          |             |        |
|        | Stolephorus ( <i>Anchoviella</i> )                           | 324             |          | 324    | 74                       |          | 85          | 159    |
|        | Thrissina  |                 |          |        |                          |          |             |        |
|        | Thryssa ( <i>Thrissocles</i> )                               |                 |          |        | 23                       |          | 13          | 36     |
| g.     | Other clupeoids  |                 |          |        | 16                       |          | 7           | 23     |
| 5.     | Bombay duck ( <i>Harporodon nehereus</i> )                   |                 |          |        |                          |          |             |        |
| 6.     | Lizard fishes ( <i>Saurida &amp; Saurus</i> )                | 5,114           | 1        | 5,115  | 303                      |          |             | 303    |
| 7.     | Half beaks & full beaks ( <i>Hemirhamphus &amp; Belone</i> ) |                 | 2        | 2      |                          | 3        | 1           | 4      |
| 8.     | Flying fishes  |                 |          |        |                          |          |             |        |
| 9.     | Perches  |                 |          | 14,926 |                          |          |             | 965    |
| a.     | Rock cods  |                 | 13       | 13     | 5                        | 2        |             | 7      |
| b.     | Snappers   |                 |          |        | 23                       | 1        | 1           | 25     |
| c.     | Pig-face breams  |                 |          |        |                          |          |             |        |
| d.     | Threadfin breams   | 3,562           |          | 3,562  | 2,295                    |          |             | 2,295  |
| e.     | Other perches  | 209             |          | 209    | 178                      | 8        | 2           | 188    |
| 10.    | Goatfishes (Red mullets)                                     | 3               |          | 3      |                          |          |             |        |
| 11.    | Threadfins (Polynemids)                                      |                 |          |        |                          |          |             |        |
| 12.    | Croakers (Sciaenids)   | 1,263           | 4        | 1,267  | 229                      | 2        | 3           | 234    |
| 13.    | Ribbon fishes  | 26              | 1        | 27     | 8                        |          | 6           | 14     |
| 14.    | Carangids  |                 |          |        |                          |          |             |        |
| a.     | Horse mackerel   |                 | 2        | 2      |                          | 7        | 17          | 24     |
| b.     | Scads  | 66              | 2        | 68     |                          | 2        |             | 2      |
| c.     | Leather-jackets ( <i>Chorinemus</i> )                        |                 |          |        |                          | 14       | 9           | 23     |
| d.     | Other carangids  | 39              | 18       | 57     | 22                       | 102      | 371         | 495    |
| 15.    | Silverbellies ( <i>Leiognathus &amp; Gazza</i> )             | 584             | 2        | 586    | 25                       |          | 20          | 45     |
| 16.    | Big-jawed jumper ( <i>Lactarius</i> )                        | 124             |          | 124    | 18                       |          |             | 18     |
| 17.    | Pomfrets   |                 |          | 108    |                          |          |             |        |
| a.     | Black pomfret  |                 | 21       | 21     |                          | 148      | 16          | 164    |
| b.     | Silver pomfret   |                 | 2        | 2      | 4                        | 6        | 6           | 16     |
| c.     | Chinese pomfret  |                 |          |        |                          | 9        |             | 9      |
| 18.    | Mackerel   |                 |          | 133    |                          |          |             |        |
| a.     | Indian mackerel  | 4               | 27       | 31     | 9                        | 40       | 3,900       | 3,949  |
| b.     | Other mackerel   |                 |          |        |                          |          |             | 4,358  |
| 19.    | Seer fishes  |                 | 21       | 21     |                          |          |             |        |
| a.     | <i>S. commersoni</i>   |                 | 58       | 58     |                          | 205      | 1           | 206    |
| b.     | <i>S. guttatus</i>   |                 |          |        |                          | 9        |             | 9      |
| c.     | <i>S. lineolatus</i>   |                 |          |        |                          |          |             |        |
| d.     | <i>Acanthocybium</i> sp.                                     |                 |          |        |                          |          |             |        |
| 20.    | Tunnies  |                 |          | 794    |                          |          |             | 1,277  |
| a.     | <i>E. affinis</i>  |                 | 250      | 250    |                          | 461      | 64          | 525    |
| b.     | <i>Auxis</i> spp.  |                 | 19       | 19     |                          | 390      |             | 390    |
| c.     | <i>K. pelamis</i>  |                 |          |        |                          |          |             |        |
| d.     | <i>T. tonggol</i>  |                 |          |        |                          | 7        |             | 7      |
| e.     | Other tunnies  |                 | 17       | 17     |                          | 61       | 155         | 216    |
| 21.    | Bill fishes  |                 | 13       | 13     |                          | 30       |             | 30     |
| 22.    | Barracudas ( <i>Sphyraena</i> )                              | 42              |          | 42     | 17                       | 5        | 26          | 48     |
| 23.    | Mulletts ( <i>Mugil</i> )                                    |                 |          |        |                          |          | 67          | 67     |
| 24.    | Unicorn cod ( <i>Bregmaceros</i> )                           |                 |          |        |                          |          |             |        |

Table 20 Contd.

|     |                                      |         |       |        |         |        |        |        |        |
|-----|--------------------------------------|---------|-------|--------|---------|--------|--------|--------|--------|
| 25. | Flatfishes                           |         |       |        |         |        |        |        |        |
| a.  | Halibut ( <i>Psettoodes erumei</i> ) | 60      | 1     | 61     | 11      | 1      |        | 12     |        |
| b.  | Flounders                            |         |       |        |         |        |        |        |        |
| c.  | Soles                                | 2,004   |       | 2,004  | 2,791   | 282    |        | 282    | 208    |
| 26. | Crustaceans                          |         |       |        |         |        |        |        |        |
| a.  | Penaeid prawns                       | 9,537   |       | 9,537  | 36,559  | 2,530  | 1      | 2,531  | 3,515  |
| b.  | Non penaeid prawns                   |         |       |        |         |        |        |        |        |
| c.  | Lobsters                             | 3       |       | 3      |         |        |        |        |        |
| d.  | Crabs                                | 74      |       | 74     | 4,167   | 38     |        | 38     | 86     |
| e.  | Stomatopods                          | 1,901   |       | 1,901  |         | 261    |        | 261    | 618    |
| 27. | Cephalopods                          | 802     |       | 802    | 2,150   | 95     |        | 95     | 80     |
| 28. | Miscellaneous                        | 1,809   | 14    | 1,823  | 3,939   | 161    | 40     | 6      | 207    |
|     | TOTAL                                | 31,314  | 1,113 | 32,427 | 84,556  | 7,124  | 2,461  | 17,454 | 27,039 |
|     | No. of operations of fishing units   | 126,880 | 8,444 |        | 187,843 | 44,323 | 21,947 | 8,870  | 96,147 |

trawlers and gill netters was 233 and 159 kg. While the catch of perches, silverbellies and penaeid prawns from both increased by about 1,130, 1,030, 1,030 and 400 t respectively, croakers, elasmobranchs and flat fishes recorded reduced landings by about 500, 270 and 230 t respectively.

#### Cuddalore Fisheries Harbour

The total catch by trawlers and gill netters declined by about 900 t during 1981 (Table 19). The trawlers landed about 91 % of the total mechanised catch in 1981 and the rest by gill netters. The catch per unit effort for trawlers was 125 kg while that of gill netters 121 kg. The decline in the total mechanised catch was mainly due to reduced landings of silverbellies, perches and clupeoids by about 310, 170 and 130 t respectively.

#### Nagapatnam

The catch of trawlers during 1981 increased by about 1,900 t. (93%) Table 19). The number of operations of the trawlers also increased by about 6,500. The catch per unit effort during 1981 and 1980 was 245 and 216 kg respectively. Most of the species recorded improved catches during 1981, the major species that showed higher landings were silverbellies, croakers, penaeid prawns, clupeoids, flat fishes and elasmobranchs, the increase being about 310, 300, 240, 220, 90 and 90 t respectively.

#### Mandapam

The catch obtained from trawlers during 1981 was more than double as compared to 1980 (Table 19). The number of operations of the boats also increased by about 22,700. The catch per unit effort during 1981 increased to 114 kg from 101 kg recorded in 1980. The species which recorded higher landings during 1981 were silverbellies, penaeid prawns, croakers and elasmobranchs whose catches increased by about 1,600, 600, 200 and 150 t respectively.

#### Rameswaram

The total catch from trawlers and gill netters during 1981 increased by about 6,200 t, the bulk of the catch being from trawlers (Table 19). The catch per unit effort for trawlers and gill netters during 1981 was 203 and 101 kg respectively. Barring stomatopods and catfishes whose catch declined by about 150 and 100 t respectively, all the other major species recorded higher catches from both during 1981. The species that recorded higher landings were silverbellies, croakers, elasmobranchs, penaeid prawns, crabs and goat fishes whose landings increased by about 2,800, 1,300, 1,100, 700, 200 and 170 t respectively.

#### Tuticorin Fisheries Harbour

The total catch from both trawlers and gill netters during 1981 showed an increase of about 5,800 t (88%) as compared to 1980, the bulk of the catch coming from trawlers (Table 19). While the catch per unit effort from trawlers was about 385 kg the same from gill netters was about 166 kg. The significant increase in the total catch of both during 1981 was due to higher catches of penaeid prawns, clupeoids and silver bellies, the increase in their landings being about 2,800, 1,800 and 1,200 t respectively. The landings of croakers, soles and elasmobranchs, however, decreased by about 300, 200 and 140 t respectively.

#### Sakthikulangara

The total catch by trawlers during 1981 decline by about 50,000 tonnes, the corresponding number of operations of fishing crafts also declined by about 46,000 (Table 20). The catch per unit effort also declined to 247 kg in 1981 from 470 kg recorded in 1980. The poor landings of prawns, perches, catfishes and croakers respectively by about 27,000, 11,000, 2,500 and 1,200 t were responsible for the sharp decline in the total catch.

**Table 20.** Composition of marine fish landings from mechanised boats at major fish landing centres along the west coast of India (in tonnes)

(Continued)

| SASSOON DOCKS |   |           |         |          |               |       |
|---------------|---|-----------|---------|----------|---------------|-------|
| 1981          |   |           |         |          |               |       |
| Sl. No.       | Name of fish  | Trawl net | Dol net | Gill net | Hooks & lines | Total |
| 1.            | Elasmobranchs   |           |         |          |               | 1,337 |
| a.            | Sharks  | 908       | —       | 244      | 45            | 1,197 |
| b.            | Skates  | 38        | —       | —        | 2             | 40    |
| c.            | Rays  | 493       | 1       | 56       | 5             | 555   |
| 2.            | Eels  | 97        | —       | —        | 29            | 126   |
| 3.            | Catfishes   | 1,720     | 4       | 1        | 252           | 1,977 |
| 4.            | Clupeoids   |           |         |          |               | 2,196 |
| a.            | Wolf herring ( <i>Chirocentrus</i> )                              | 57        | —       | 99       | —             | 156   |
| b.            | Oil sardine   | 68        | 28      | —        | —             | 96    |
| c.            | Other sardines<br>(Lesser sardines)                               | —         | 4       | —        | —             | 4     |
| d.            | Hilsa shad ( <i>Hilsa ilisha</i> )                                | —         | —       | —        | —             | —     |
| e.            | Other shads (Other <i>Hilsa</i> )                                 | —         | 2       | 95       | —             | 97    |
| f.            | Anchovies   |           |         |          |               | 84    |
|               | <i>Coilia</i>   | 1,008     | 107     | —        | —             | 1,115 |
|               | <i>Setipinna</i>  | —         | —       | —        | —             | —     |
|               | <i>Stolephorus</i> ( <i>Anchoviella</i> )                         | —         | —       | —        | —             | —     |
|               | <i>Thrissina</i>  | —         | —       | —        | —             | —     |
|               | <i>Thryssa</i> ( <i>Thrissocles</i> )                             | —         | —       | —        | —             | —     |
| g.            | Other clupeoids   | 58        | 4       | 7        | —             | 69    |
| 5.            | Bombay duck<br>( <i>Harpodon nehereus</i> )                       | 18        | 441     | —        | —             | 459   |
| 6.            | Lizard fishes<br>( <i>Saurida</i> & <i>Saurus</i> )               | 334       | —       | —        | —             | 334   |
| 7.            | Half beaks & Full beaks<br>( <i>Hemiramphus</i> & <i>Belone</i> ) | —         | —       | —        | —             | —     |
| 8.            | Flying fish   | —         | —       | —        | —             | —     |
| 9.            | Perches   |           |         |          |               | 1,802 |
| a.            | Rock cods   | 20        | —       | —        | —             | 20    |
| b.            | Snappers  | 22        | —       | —        | —             | 22    |
| c.            | Pig-face breams   | —         | —       | —        | —             | —     |
| d.            | Threadfin breams  | 1,018     | —       | —        | —             | 1,018 |
| e.            | Other perches   | 34        | —       | 2        | 4             | 40    |
| 10.           | Goatfishes (Red mullets)  | 37        | —       | —        | —             | 37    |
| 11.           | Threadfins (Polynemids)   | 130       | —       | —        | 1             | 131   |
| 12.           | Croakers (Sciaenids)  | 4,135     | 76      | —        | 21            | 4,232 |
| 13.           | Ribbon fishes   | 1,364     | 33      | 1        | —             | 1,398 |
| 14.           | Carangids   |           |         |          |               | 1,865 |

Table 20 Contd.

|                                       |    |   |        |        |       |       |        |        |
|---------------------------------------|----|---|--------|--------|-------|-------|--------|--------|
|                                       | a. | Horse mackerel                                    | 2      | —      | 23    | —     | 25     | 11     |
|                                       | b. | Scads   | —      | —      | —     | —     | —      | —      |
|                                       | c. | Leather-jackets<br><i>Chorinemus</i>              | —      | —      | 40    | —     | 40     | 19     |
|                                       | d. | Other carangids                                   | 56     | —      | —     | —     | 56     | 38     |
| 15.                                   |    | Silverbellies<br><i>(Leiognathus &amp; Gazza)</i> |        |        |       |       |        | 23     |
| 16.                                   |    | Big-jawed jumper<br><i>(Lactarius)</i>            |        |        |       |       |        |        |
| 17.                                   |    | Pomfrets  | 3      | —      | —     | —     | 3      | 334    |
|                                       | a. | Black pomfret                                     | 1      | —      | 255   | —     | 256    |        |
|                                       | b. | Silver pomfret                                    | 59     | 27     | 138   | —     | 224    |        |
|                                       | c. | Chinese pomfret                                   | —      | —      | —     | —     | —      |        |
| 18.                                   |    | Mackerel  |        |        |       |       |        |        |
|                                       | a. | Indian mackerel                                   | —      | —      | —     | —     | —      |        |
|                                       | b. | Other mackerels                                   | —      | —      | —     | —     | —      |        |
| 19.                                   |    | Scor fishes                                       | 45     | —      | 179   | —     | 224    | 143    |
|                                       | a. | <i>S. commersoni</i>                              | 4      | —      | —     | —     | 4      |        |
|                                       | b. | <i>S. guttatus</i>                                | 4      | —      | 8     | —     | 12     |        |
|                                       | c. | <i>S. lineolatus</i>                              | —      | —      | —     | —     | —      |        |
|                                       | d. | <i>Acanthocybium</i> Sp.                          | —      | —      | —     | —     | —      |        |
| 20.                                   |    | Tunnies   |        |        |       |       |        | 333    |
|                                       | a. | <i>E. affinis</i>                                 | —      | —      | 1     | —     | 1      |        |
|                                       | b. | <i>Auxis</i> spp.                                 | —      | —      | —     | —     | —      |        |
|                                       | c. | <i>K. pelamis</i>                                 | —      | —      | 7     | —     | 7      |        |
|                                       | d. | <i>T. tonggol</i>                                 | —      | —      | —     | —     | —      |        |
|                                       | e. | Other tunnies                                     | 41     | —      | 500   | —     | 541    |        |
| 21.                                   |    | Bill fishes                                       | —      | 1      | 72    | —     | 73     |        |
| 22.                                   |    | Barracudas ( <i>Sphyræna</i> )                    | —      | —      | —     | —     | —      |        |
| 23.                                   |    | Mulletts ( <i>Mugil</i> )                         | —      | —      | —     | —     | —      |        |
| 24.                                   |    | Unicorn cod<br><i>(Bregmaceros)</i>               | —      | —      | —     | —     | —      |        |
| 25.                                   |    | Flatfishes  | 29     | —      | —     | —     | 29     |        |
|                                       | a. | Halibut ( <i>Psettodes erumei</i> )               | —      | —      | —     | —     | —      |        |
|                                       | b. | Flounders   | 34     | —      | 4     | —     | 38     |        |
|                                       | c. | Soles   | 386    | —      | —     | —     | 386    | 236    |
| 26.                                   |    | Crustaceans                                       |        |        |       |       |        |        |
|                                       | a. | Penaeid prawns                                    | 6,171  | 121    | —     | —     | 6,292  | 5,001  |
|                                       | b. | Non penaeid prawns                                | 251    | 1,066  | —     | —     | 1,317  | 1,093  |
|                                       | c. | Lobsters  | 82     | —      | —     | —     | 82     | 98     |
|                                       | d. | Crabs   | —      | —      | —     | —     | —      | 5      |
|                                       | e. | Stomatopods                                       | —      | 1      | —     | —     | 1      | —      |
| 27.                                   |    | Cephalopods                                       | 859    | —      | —     | —     | 859    | 635    |
| 28.                                   |    | Miscellaneous                                     | 1      | 9      | —     | —     | 10     | 119    |
| TOTAL                                 |    |   | 19,587 | 1,925  | 1,732 | 359   | 23,603 | 20,835 |
| No. of operations of<br>fishing units |    |   | 21,540 | 13,999 | 4,533 | 1,617 |        | 37,462 |



The landings from gillnetters also declined by about 2,200 t. Both the number of operations and catch per unit effort declined in 1981 as compared to 1980 the former by 6,700 and the latter by 89 kg. The lower landings of catfishes, tunnies, elasmobranchs and seer fishes by 600, 500, 500 and 300 t respectively brought down the total catch.

#### **Cochin Fisheries Harbour**

The total catch from trawlers declined marginally by about 800 t. The number of operations and the catch per unit effort also declined marginally during 1981 as compared to 1980, the former by 1,800 and the latter by 11 kg. The landings of clupeoids, stomatopods, croakers, carangids and catfishes declined by about 620, 360, 160, 100 and 80 t respectively. Perches, however, recorded a substantial increase of about 1,600 t. (Table 20)

While the catch from gill netters declined by 100 t, the catch per unit effort showed an increase of about 48 kg, since the number of operations declined sharply by about 18,500. The lower total catch during 1981 was mainly due to reduced landings of tunnies by about

240 t. The catch of elasmobranchs and pomfrets, however, increased by about 80 and 50 t respectively.

The purse seiner landings during 1981 showed an increase of about 2,600 t. While the number of operations of the boats declined by 710, the catch per unit effort increased by about 417 kg. The landings of clupeoids increased by about 2,300 t and of mackerel declined by about 320 t.

#### **Sassoon Docks**

During 1981, mechanised boats operated with trawl nets, dol nets, gill nets and hooks and lines in Sassoon Docks, the combined catch for all the gears being 23,603 t as compared to 20,835 t in 1980, showing an increase of about 2,800 t (13%) (Table 20). The bulk of the mechanised catch during 1981 was from trawlers (83%), the rest being from dol nets (8%), gill nets (7%) and hooks and lines (2%). Comparatively higher landing of penaeid prawns, croakers and non penaeid prawns during 1981 contributed to the higher catch in the year, the increase in their landings being 1,300, 1,250 and 220 t respectively. The catch of perches, however, showed a decline.

